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**Fish and Hydrographic Collections  
Made by the Research Vessels  
*Dolphin* and *Delaware II* During  
1968-72 From New York to Florida**

S. J. WILK and M. J. SILVERMAN

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National Marine  
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S. J. WILK and M. J. SILVERMAN<sup>1</sup>

## ABSTRACT

Information is given in tabular form for fish and hydrographic observations collected during 18 cruises made by the research vessels *Dolphin* and *Delaware II* from New York to Florida during 1968-72. Tables include station locations with related hydrographic observations and number, weight, and size range of fish species caught.

## INTRODUCTION

The Sandy Hook Marine Laboratory began a series of 18 trawl cruises in 1968 to study the life histories of five species of the family Sciaenidae occurring along the Atlantic coast: weakfish, *Cynoscion regalis*; spot, *Leiostomus xanthurus*; southern kingfish, *Menticirrhus americanus*; northern kingfish, *Menticirrhus saxatilis*; and Atlantic croaker, *Micropogon undulatus*. These studies included age and growth, distribution, migration, reproduction, and population structure. This paper reports the fishes collected and hydrographic observations made during these trawl cruises.

## SURVEY DESIGN

Sampling areas and time of each cruise depended on the particular aspect of sciaenid biology under study and the availability of vessels. All cruises, with the exception of those specifically designed for tagging or gear experiments, were conducted along predetermined transects. These were normal to the shore and extended seaward as far as 167 km (90 nautical miles). Sampling stations were spaced at intervals of 1 to 22 km (0.5 to 12.0 nautical miles), the spacing depending on the fishing intensity required to fulfill particular collection requirements. In addition, when time and weather permitted, special trawl stations were made at the mouths of inlets.

In all tables, the *Dolphin* cruises are encoded by the letter D and the *Delaware II* cruises by the abbreviation Del. These are followed by year digits and a series of numbers assigned consecutively during the year. For example, Del-72-15 was the 15th cruise of the *Delaware II* in 1972. Each station is designated by a number, indicating the consecutive station order for the particular cruise.

Table 1 gives the cruise designations, dates, geographical boundaries, number of stations completed, and primary purpose of each cruise. Appendix Table 1 gives station dates, coordinates to the nearest 0.2 km (0.1 nautical mile),

time of day, trawling time, total catch, and hydrographic observations.

## INSTRUMENTS AND COLLECTING GEAR

A strip-chart recorder provided a continuous record of surface water temperature. On station, surface water temperatures were measured with stem thermometers accurate to  $\pm 0.1^{\circ}\text{C}$ . Vertical temperature profiles were obtained with a mechanical bathythermograph. Salinity was measured with a portable salinometer, which also provided supplementary temperature data.

All finfish collections were made with a  $\frac{3}{4}$ -scale version of a Yankee No. 36 otter trawl having a 16.5-m (54-foot) footrope and an 11.9-m (39-foot) headrope. The wings, square, and bellies of the trawl were constructed of 127-mm (5-inch) stretched measure No. 54 braided flat nylon and the cod end of 51-mm (2-inch) stretched measure No. 30 braided flat nylon. A sweep line consisting of about 1,000 rubber discs 114 mm (4.5 inches) in diameter strung on 10-mm (0.38-inch) chain was attached to the footrope at intervals of about 356 mm (14 inches). Twelve 203-mm (8-inch) diameter aluminum trawl floats were equally spaced along the headrope. The trawl was fished with 11.6-m (38-foot) legs and 16.5-m (54-foot) ground cables. The bottom legs and ground cables were both constructed of 19-mm (0.75-inch) 6  $\times$  19 steel cable and the top legs of 13-mm (0.50-inch) 6  $\times$  19 steel cable. New England otter trawl doors constructed of wood and steel weighing 226.8 kg (500 pounds) were used with this trawl during cruises aboard the *Dolphin*. Doors of the same basic design weighing 226.8 to 340.2 kg (500-700 pounds) were used aboard the *Delaware II*.

## THE SURVEY

Loran A navigation was the principal method used for positioning the *Dolphin* and *Delaware II* on collecting stations. Because of inherent limitations of Loran A navigation, accuracy of positioning on offshore stations cannot be considered better than  $\pm 1.8$  km (1.0 nautical mile). Increased accuracy was obtained on inshore stations by use of radar, land ranges, and by visual sightings of buoys, lightships, and light towers.

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Table 1.--Summary of cruises.

Cruise code	Dates	Geographical boundaries	No. of stn.	Purpose of study
D-68-7	July 30-Aug. 2, 1968	Moriches Inlet, N.Y. to Shark River Inlet, N.J.	23	Determine the distribution of weakfish and related species in relation to bottom temperatures.
D-68-13	Oct. 29-Nov. 8, 1968	Oregon Inlet, N.C. to Bogue Inlet, N.C.	55	(1) Determine selectivity of various codend mesh sizes in trawls fishing for sciaenid species; (2) collect living specimens of sciaenids for tag-testing; (3) tag and release <i>Paralichthys</i> sp.
D-69-9	Apr. 15-25, 1969	Cape May, N.J. to Cape Lookout area of N.C.	69	(1) Tag and release weakfish, spot, and Atlantic croaker; (2) collect age and growth material relevant to sciaenids; (3) sample for juvenile sciaenids, sea basses, and <i>Paralichthys</i> sp.; (4) tag and release <i>Paralichthys</i> sp.
D-69-15	June 25-30, 1969	Sea Bright, N.J. to Ocean City, Md.	70	(1) Collect sciaenids for studies of age, growth, morphometrics, feeding, spawning, and distribution; (2) tag and release sciaenids for migration and growth studies.
D-69-21	Aug. 19-21, 1969	A single transect off Ocean City, Md.	5	Same as D-69-15.
D-69-23	Sept. 10-18, 1969	Barnegat Inlet, N.J. to Cape Fear, N.C.	45	Same as D-69-15.
D-69-25	Sept. 30-Oct. 1, 1969	Shinnecock Inlet, N.Y. to Jones Inlet, N.Y.	13	Same as D-69-15.
D-69-29	Oct. 28-Nov. 6, 1969	Ocracoke Inlet, N.C. to Charleston, S.C.	27	Same as D-69-15.
D-70-7	May 6-7, 1970	A single transect off Great Egg Harbor, N.J.	4	Same as D-69-15.
D-70-16	July 6-10, 1970	Fire Island Inlet, N.Y. to Ocean City, Md.	39	Same as D-69-15.
D-70-19	Aug. 3-7, 1970	Fire Island Inlet, N.Y. to Ocean City, Md.	40	Same as D-69-15.
D-71-3	Mar. 29-Apr. 9, 1970	Barnegat Inlet, N.J. to New Smyrna Beach, Fla.	41	(1) Collect material relevant to age, growth, morphometrics, feeding, spawning, migration, and distribution of weakfish, spot, Atlantic croaker, and kingfishes; (2) collect larval summer flounder.
D-71-11	July 12-23, 1971	Barnegat Inlet, N.J. to Ponce de Leon Inlet, Fla.	49	(1) Collect material relevant to age, growth, morphometrics, feeding, spawning, migration, and distribution of sciaenid species; (2) collect specimens of <i>Paralichthys</i> sp. for morphometric and meristic studies.
D-71-14	Aug. 23-27, 1971	Fire Island, N.Y. to Ocean City, Md.	34	(1) Same as item 1 of D-71-11; (2) define biologically and hydrographically a cell of cold bottom water which repeatedly occurs in the N.Y. Bight during the summer.
Del-71-2	Nov. 2-3, 1971	Fire Island, N.Y. to Barnegat Inlet, N.J.	9	Check comparability of <i>Delaware II</i> and <i>Dolphin</i> in towing $\frac{1}{2}$ combination trawl.
Del-71-3	Nov. 8-19, 1971	Assateague Island, Va. to Cape Kennedy, Fla.	69	(1) Same as D-71-11; (2) continue survey of coastal fishes.
Del-72-8	Mar. 20-31, 1972	Oregon Inlet, N.C. to Cape Kennedy, Fla.	75	(1) Same as Del-71-3; (2) make neuston net tows at each trawl station to sample for juvenile fishes.
Del-72-15	May 15-26, 1972	Oregon Inlet, N.C. to Cape Kennedy, Fla.	77	Same as Del-71-3.

Hydrographic data obtained routinely at the beginning of each station consisted of vertical temperature and salinity profiles as well as surface temperature and depth. Salinity was measured at the surface and at 5-m intervals as determined by markings on the portable salinometer cable. The cable was kept as nearly vertical as possible by attaching a 4.5-kg (10-pound) weight to the sensor and by moving the vessel slowly in the direction of drift. Deviations from this procedure were made during some cruises and on particular stations because of the depth limit of the salinometer cable, weather conditions, instrument failure, or close proximity of stations. Only measurements of depth

and of the temperature and salinity at the surface and bottom are given in Appendix Table 1. All additional hydrographic data are on file at the Middle Atlantic Coastal Fisheries Center.

Trawl tows were made along isobaths to avoid sudden depth changes. Towing duration was 3 to 70 min, but most tows were 15 min. Towing speed was about 5.6 km/h (3 knots).

At the conclusion of each tow, the trawl was hauled back and emptied onto a fish sorting table where all finfish were sorted and identified. Sources of identification used were: Jordan and Evermann (1896-1900), Hildebrand and Schroeder (1928), Beebe and Tee-Van (1933), Ginsburg (1937, 1950, 1951, 1952, 1953), Hildebrand (1943), Breder (1948), Bigelow and Schroeder (1953), Berry (1959a, 1959b), Miller (1959), Berry and Anderson (1961), Berry and Voge (1961), Jutare (1962), Casey (1964), Rivas (1964), Eschmeyer (1965), Anderson et al. (1966), Greenwood et al. (1966), Randall and Caldwell (1966), Anderson (1967), Gutherz (1967), Moore (1967), Böhlke and Chaplin (1968), Randall (1968), and Shipp and Yerger (1969).

Sciaenid species of interest were dealt with in one or more of the following ways: counted, weighed, and measured; tagged and released; or frozen for laboratory determination of age, growth, racial characteristics, and fecundity. When time and personnel permitted, specimens of other species were weighed, counted, and a random sample measured to the nearest centimeter. When the number of any species was excessive, the total number was estimated by counting and weighing the specimens in a subsample. The data for several of the early cruises are incomplete owing largely to the lack of personnel.

Appendix Table 2 is a phylogenetic list of the 217 species and 77 families of fishes collected during the 18 cruises. Unless indicated, scientific and common names are according to Bailey et al. (1970). Length measurements are expressed as total length.

Collected data were recorded on appropriate automatic data processing forms, transferred to punch cards, and incorporated into sorting, listing, and statistical systems to simplify data recall and analysis. Arrangements of data presented here were accomplished using these systems.

## LITERATURE CITED

- ANDERSON, W. D., JR.  
1967. Field guide to the snappers (Lutjanidae) of the western Atlantic. U.S. Fish Wildl. Serv., Circ. 252, 14 p.
- ANDERSON, W. W., J. W. GEHRINGER, and F. H. BERRY.  
1966. Field guide to the Synodontidae (Lizardfishes) of the western Atlantic Ocean. U.S. Fish Wildl. Serv., Circ. 245, 12 p.
- BAILEY, R. M., J. E. FITCH, E. S. HERALD, E. A. LACHNER, C. C. LINDSAY, C. R. ROBINS, and W. B. SCOTT.  
1970. A list of common and scientific names of fishes from the United States and Canada. Am. Fish. Soc., Spec. Publ. 6, 150 p.
- BEEBE, W., and J. TEE-VAN.  
1933. Field book of the shore fishes of Bermuda. G. P. Putnam's Sons, N.Y., 337 p.
- BERRY, F. H.  
1959a. Boarfishes of the genus *Antigonion* of the western Atlantic. Bull. Fla. State Mus., Biol. Sci. 4:205-250.  
1959b. Young jack crevallies (*Caranx* species) off the southeastern Atlantic coast of the United States. U.S. Fish Wildl. Serv., Fish. Bull. 59:417-535.

- BERRY, F. H., and W. W. ANDERSON.  
 1961. Stargazer fishes from the western North Atlantic (family Uranoscopidae). Proc. U.S. Natl. Mus. 112:563-586.
- BERRY, F. H., and L. E. VOGEL.  
 1961. Filefishes (Monacanthidae) of the western North Atlantic. U.S. Fish Wildl. Serv., Fish. Bull. 61:61-109.
- BIGELOW, H. B., and W. C. SCHROEDER.  
 1953. Fishes of the Gulf of Maine. U.S. Fish Wildl. Serv., Fish. Bull. 53, 577 p.
- BÖHILKE, J. E., and C. C. G. CHAPLIN.  
 1968. Fishes of the Bahamas and adjacent tropical waters. Livingston Publ. Co., Wynnewood, Pa., 771 p.
- BREDER, C. M., JR.  
 1948. Field book of marine fishes of the Atlantic coast. G. P. Putnam's Sons, N.Y., 332 p.
- CASEY, J. G.  
 1964. Anglers' guide to sharks of the northeastern United States, Maine to Chesapeake Bay. U.S. Fish Wildl. Serv., Circ. 179, 32 p.
- ESCHMEYER, W. N.  
 1965. Western Atlantic scorpionfishes of the genus *Scorpaena*, including four new species. Bull. Mar. Sci. 15:84-164.
- GINSBURG, I.  
 1937. Review of the seahorses (*Hippocampus*) found on the coasts of the American continents and of Europe. Proc. U.S. Natl. Mus. 83:497-594.
1950. Review of the western Atlantic Triglidae (fishes). Tex. J. Sci. 2:489-527.
1951. Western Atlantic tonguefishes with descriptions of six new species. Zoologica (N.Y.) 36:185-201.
1952. Flounders of the genus *Paralichthys* and related genera in American waters. U.S. Fish Wildl. Serv., Fish. Bull. 52:267-351.
1953. Western Atlantic scorpionfishes. Smithson. Misc. Collect. 121:1-103.
- GREENWOOD, P. H., D. E. ROSEN, S. H. WEITZMAN, and G. S. MYERS.  
 1966. Phyletic studies of teleostean fishes, with a provisional classification of living forms. Bull. Am. Mus. Nat. Hist. 131:339-455.
- GUTIÉRREZ, E. J.  
 1967. Field guide to the flatfishes of the family Bothidae in the western North Atlantic. U.S. Fish Wildl. Serv., Circ. 263, 47 p.
- HILDEBRAND, S. F.  
 1943. A review of the American anchovies (family Engraulidae). Bull. Bingham Oceanogr. Collect. Yale Univ. 8(2):1-165.
- HILDEBRAND, S. F., and W. C. SCHROEDER.  
 1928. Fishes of Chesapeake Bay. U.S. Bur. Fish., Bull. 43, Part 1, 366 p.
- JORDAN, D. S., and B. W. EVERMANN.  
 1896-1900. The fishes of North and Middle America. Bull. U.S. Natl. Mus. 47, 3313 p.
- JUTARE, T. V.  
 1962. Studies on the biology of *Bothus ocellatus* with a description of a related new species. M.S. Thesis, Univ. Miami, Coral Gables, Fla., 97 p.
- MILLER, R. J.  
 1959. A review of the seabasses of the genus *Centropristes* (Serranidae). Tulane Stud. Zool. 7:33-68.
- MOORE, D.  
 1967. Triggerfishes (Balistidae) of the western Atlantic. Bull. Mar. Sci. 17:689-722.
- RANDALL, J. E.  
 1968. Caribbean reef fishes. T. F. H. Publ., Inc., Jersey City, N.J., 318 p.
- RANDALL, J. E., and D. K. CALDWELL.  
 1966. A review of the sparid fish genus *Calamus*, with descriptions of four new species. Bull. Los Ang. Cty. Mus. Nat. Hist. Sci. 2, 47 p.
- RIVAS, L. R.  
 1964. Western Atlantic serranid fishes (groupers) of the genus *Epinephelus*. Q. J. Fla. Acad. Sci. 27:17-30.
- SHIPP, R. L., and R. W. YERGER.  
 1969. A new puffer fish, *Sphoeroides parvus*, from the western Gulf of Mexico, with a key to species of *Sphoeroides* from the Atlantic and Gulf coasts of the United States. Proc. Biol. Soc. Wash. 82:477-488.

Appendix Table 1.--Summary of cruise stations.

Cruise stn.	Date	Lat. (N)	Long. (W)	Location	Start time	Duration (min)	Total catch No.	Wt. (kg)	No. spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity (‰) Surface	Salinity (‰) Bottom**
D-68-7	July													
1	30	40°25.0'	73°58.0'	0851	15	44	*		6	7	19.9	16.7	28.3	30.0
2	30	40°25.2'	73°57.2'	0957	15	18	*		3	7	19.9	14.1	28.8	30.8
3	30	40°26.5'	73°56.4'	1057	17	103	*		6	14	19.9	10.6	28.2	31.2
4	30	40°25.0'	73°52.2'	1223	17	422	*		8	22	20.1	8.9	28.5	31.3
5	30	40°24.9'	73°46.0'	1509	18	2	*		2	37	23.0	8.4	30.0	30.7
6	30	40°24.8'	73°38.8'	1630	22	13	*		2	20	23.6	9.8	29.9	30.3
7	30	40°19.0'	73°36.1'	1821	18	124	*		3	26	23.5	10.9	29.9	30.7
8	31	40°24.5'	73°36.3'	0628	20	31	*		4	18	23.0	10.8	30.0	30.6
9	31	40°29.5'	73°36.5'	0757	18	28	*		5	18	19.6	14.2	28.3	31.0
10	31	40°32.5'	73°36.0'	0918	18	302	*		7	14	20.2	14.1	29.6	30.9
11	31	40°33.4'	73°36.0'	1000	Trawl hung and catch lost					37	20.4	14.8	29.3	30.7
12	31	40°34.1'	73°35.2'	1040	10	109	*		7	7	24.4	16.3	29.2	30.5
13	31	40°34.5'	73°33.0'	1127	13	114	*		7	7	20.8	18.9	29.9	31.0
14	31	40°37.0'	73°18.7'	1330	18	75	*		10	10	21.5	16.7	29.6	30.7
15	31	40°36.5'	73°17.4'	1413	19	17	*		5	13	21.7	14.8	29.6	31.0
16	31	40°36.0'	73°19.3'	1506	19	32	*		2	14	21.7	14.4	29.0	30.6
17	31	40°35.2'	73°15.5'	1609	21	32	*		3	15	21.1	13.9	29.9	30.6
18	31	40°32.5'	73°19.3'	1746	24	4	*		2	22	21.7	12.6	29.2	30.4
Aug.														
19	1	40°45.0'	72°45.5'	0617	18	14	*		4	9	21.5	18.1	30.0	30.2
20	1	40°45.0'	72°44.1'	0657	20	26	*		4	15	21.5	14.9	30.1	30.4
21	1	40°43.7'	72°45.0'	0753	19	22	*		5	21	21.1	13.0	29.8	30.7
22	1	40°41.5'	72°42.3'	0853	19	19	*		8	27	20.5	8.9	30.0	31.2
23	1	40°14.3'	73°46.4'	1433	21	12	*		3	62	23.5	7.4	30.2	31.2
D-68-13	Oct.													
1	31	34°33.5'	76°35.5'	1352	30	145	17.1	4	15	20.1	20.0	35.2	35.4	
2	31	34°34.0'	76°33.5'	1448	30	+	+	17	*	*	*	*	*	*
3	31	34°36.2'	76°33.6'	1615	30	+	+	16	*	*	*	*	*	*
4	31	34°36.5'	76°33.8'	1934	61	+	64.0	13	*	*	*	*	*	*
5	31	34°39.6'	76°40.5'	2305	17	+	149.6	7	*	*	*	*	*	*

## Appendix Table 1.--Continued.

Cruise stn.	Date	Lat. (N)	Long. (W)	Location	Start time	Duration (min)	Total catch No.	Wt. (kg)	Depth (m)	Temp. (°C)	Surface	Bottom	Salinity (‰)
							No. spp. caught						
Nov.													
6	1	34°40.2'	76°39.1'	0338	25		*		12	*	*	*	*
7	1	34°36.1'	76°33.8'	0643	30	+	75.8	14	11	19.0	18.9	35.0	35.1
8	1	34°36.6'	76°33.9'	0859	38	+	385.6	14	*	*	*	*	*
9	1	34°34.6'	76°34.5'	1022	38	+		10	*	*	*	*	*
10	1	34°39.5'	76°40.1'	1253	45	+	104.6	12	*	*	*	*	*
11	1	34°38.0'	76°26.5'	1742	30	+		11	13	19.9	19.9	35.4	35.5
12	1	34°45.0'	76°23.0'	1907	31	+		13	*	*	*	*	*
13	1	34°48.5'	76°19.5'	2018	23	+	*	*	*	*	*	*	*
14	1	34°51.5'	76°12.0'	2120	35	+	*	*	*	*	*	*	*
15	1	35°00.5'	76°03.0'	2255	30	+	*	13	*	*	*	*	*
16	2	34°36.5'	76°34.0'	0716	16	+	573.8	16	*	*	*	*	*
17	2	34°36.5'	76°34.0'	0933	36	+	421.8	12	*	*	*	*	*
18	2	34°36.5'	76°34.0'	1109	59	+		6	18	19.5	19.5	34.9	35.1
19	2	34°34.5'	76°33.0'	1312	60	+	104.6	5	*	*	*	*	*
20	2	34°34.3'	76°34.7'	1442	60	*		*	*	*	*	*	*
21	3	34°36.3'	76°33.9'	1125	30	+		7	13	19.4	19.3	34.9	35.0
22	3	34°34.5'	76°34.3'	1214	46	+	345.6	8	*	*	*	*	*
23	3	34°34.1'	76°34.0'	1325	65	+	238.4	8	*	*	*	*	*
24	3	34°34.4'	76°34.3'	1448	59	+	172.1	8	*	*	*	*	*
25	3	34°34.3'	76°33.1'	1605	70	+		8	*	*	*	*	*
26	3	34°39.5'	76°40.5'	1826	18	+		9	*	*	*	*	*
27	3	34°41.1'	76°44.0'	1959	31	+	68.0	5	*	*	*	*	*
28	3	34°36.4'	76°35.4'	2150	30	+		4	*	*	*	*	*
29	3	34°34.6'	76°33.8'	2245	45	+	217.3	9	*	*	*	*	*
30	4	34°34.6'	76°34.7'	0015	33	+	161.3	7	*	*	*	*	*
31	4	34°35.5'	76°34.0'	0121	63	+	304.4	8	*	*	*	*	*
32	4	34°36.0'	76°35.0'	0304	61	+	245.8	11	*	*	*	*	*
33	4	34°35.5'	76°33.9'	0449	60	+		8	*	*	*	*	*
34	4	34°39.5'	76°41.0'	0704	33	+		4	*	*	*	*	*
35	4	34°41.1'	76°43.9'	0829	27	+		+	*	*	*	*	*

Appendix Table 1.-Continued.

Cruise stn.	Date	Location	Start time	Duration (min)	Total catch No.	wt. (kg)	No.spp. caught	Depth (m)	Temp. (°C)	Salinity (‰)
36	4	34°36.6'	76°34.0'	1010	40	+	694.9	7	*	*
37	4	34°36.5'	76°34.3'	1147	37	+	134.3	7	*	*
38	4	34°34.6'	76°35.3'	1245	52	+	+ 12	*	*	*
39	4	34°33.2'	76°35.3'	1438	42	+	308.0	10	*	*
40	5	34°33.0'	76°35.7'	0808	38	+	18.6	5	19	19.4
41	5	34°32.6'	76°35.6'	0913	47	+	42.0	3	*	*
42	5	34°33.3'	76°33.5'	1056	60	+	196.9	12	*	*
43	5	34°36.2'	76°33.8'	1227	32	+	+ 10	*	*	*
44	5	34°34.3'	76°34.0'	1318	49	+	+ 13	*	*	*
45	5	34°35.1'	76°34.6'	1435	58	+	+ 10	*	*	*
46	5	34°39.6'	76°40.2'	1633	26	+	+ 17	*	*	*
47	5	34°39.5'	76°38.0'	1735	30	+	+ 11	*	*	*
48	6	34°41.0'	76°43.8'	0730	30	+	+ 4	*	*	*
49	6	34°40.1'	76°42.0'	0848	22	+	+ 11	*	*	*
50	6	34°39.8'	76°41.3'	1032	13	+	+ 10	*	*	*
51	6	34°39.9'	76°41.3'	1125	17	+	+ 13	*	*	*
52	6	35°35.0'	75°13.5'	2159	11	*	* 3	35	18.6	18.6
53	6	35°35.5'	75°12.5'	2229	32	*	* 2	*	*	*
54	7	35°38.0'	75°22.0'	0028	45	+	+ 3	*	*	*
55	7	35°40.0'	75°22.5'	0133	62	*	* 3	*	*	*
D-69-9	Apr.									
1	16	36°35.0'	75°34.0'	1013	15	*	5	24	9.2	8.3
2	16	36°23.0'	75°45.5'	1235	18	+	7	15	10.8	9.3
3	16	36°16.0'	75°33.0'	1435	25	*	6	26	10.5	8.2
4	16	36°04.5'	75°38.5'	1633	22	*	12	16	10.6	9.2
5	16	35°45.5'	75°24.0'	1910	30	*	7	24	10.4	9.3
6	17	35°00.0'	75°30.0'	0035	20	*	6	44	23.0	20.0
7	17	34°58.0'	75°54.0'	0353	15	*	10	25	16.3	19.1
8	17	35°01.5'	76°01.0'	0517	18	+	1,162	*	16	16.1
9	17	34°56.0'	76°08.5'	0718	27	+	6	14	15.9	16.1

Appendix Table 1.—Continued.

Cruise stn.	Date	Lat. (N)	Location	Start time	Duration (min)	Total catch No.	Wt. (kg)	No. spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity (‰) Surface	Salinity (‰) Bottom*
10	17	34°53.0'	76°15.0'	0909	23	807	+	3	14	15.9	16.1	34.9	35.4
11	17	34°51.0'	76°16.5'	1004	30	+	+	11	14	15.9	16.1	34.9	35.4
12	17	34°47.5'	76°21.0'	1224	20	84	*	4	9	16.4	16.3	34.5	35.4
13	17	34°39.5'	76°26.5'	1349	33	117	*	7	8	16.7	15.9	34.2	35.0
14	17	34°34.8'	76°34.4'	1647	15	+	+	10	17	15.2	14.3	34.5	34.5
15	17	34°36.3'	76°34.7'	1744	22	+	*	10	17	15.2	14.3	34.5	34.5
16	17	34°35.3'	76°34.5'	1850	24	287	*	12	17	15.2	14.3	34.5	34.5
17	17	34°34.5'	76°35.1'	2006	15	133	*	7	17	15.2	14.3	34.5	34.5
18	17	34°33.6'	76°35.7'	2136	23	215	*	9	17	15.2	14.3	34.2	34.8
19	17	34°34.0'	76°35.7'	2320	22	183	*	9	18	16.0	14.4	34.2	34.8
20	18	34°33.9'	76°34.5'	0107	20	1,570	+	10	18	16.0	14.4	34.2	34.8
21	18	34°34.0'	76°34.5'	0842	22	512	*	9	18	16.0	14.4	34.2	34.8
22	18	34°33.5'	76°34.5'	0958	23	145	*	6	18	16.1	14.4	34.3	34.8
23	18	34°39.3'	76°39.7'	1140	20	68	+	9	13	16.7	14.7	33.7	34.3
24	18	34°40.0'	76°51.5'	1332	16	289	*	6	20	16.7	14.0	34.1	34.2
25	18	34°33.6'	76°53.1'	1501	21	27	*	8	22	18.8	18.7	36.2	36.2
26	20	34°33.3'	76°36.0'	0745	20	86	*	6	20	16.1	17.0	33.9	35.0
27	20	34°36.8'	76°33.8'	0854	26	+	*	8	20	16.1	17.0	33.9	35.0
28	20	34°36.7'	76°33.9'	1005	24	163	*	7	18	17.0	13.1	33.3	34.1
29	20	34°36.5'	76°33.8'	1109	19	+	+	8	18	17.0	13.1	33.3	34.1
30	20	34°36.5'	76°33.8'	1203	19	+	*	11	18	17.0	13.1	33.3	34.1
31	20	34°36.1'	76°34.4'	1305	17	240	+	9	18	17.0	13.1	33.3	34.1
32	20	34°35.9'	76°33.5'	2354	24	+	+	12	15	14.9	15.8	33.8	34.4
33	21	34°35.9'	76°34.0'	0105	20	+	+	9	15	14.9	15.8	33.8	34.4
34	21	34°36.1'	76°33.8'	0218	25	+	+	10	15	14.9	15.8	33.8	34.4
35	21	34°36.0'	76°33.6'	1155	21	+	+	11	15	14.9	15.8	33.8	34.4
36	21	34°36.1'	76°34.3'	1304	19	+	+	9	14	15.8	17.7	33.3	34.5
37	21	34°36.0'	76°34.1'	1358	24	+	+	11	14	15.8	17.7	33.3	34.5
38	21	34°36.1'	76°34.2'	1506	30	+	+	11	14	15.8	17.7	33.3	34.5
39	21	34°36.0'	76°34.2'	1610	17	+	+	11	14	15.8	17.7	33.3	34.5
40	21	34°36.0'	76°34.2'	1658	27	+	+	9	14	15.8	17.7	33.3	34.5

Appendix Table 1.-Continued.

Cruise stn.	Date	Lat. (N)	Location Long. (W)	Start time	Duration (min)	Total No.	catch Wt. (kg)	No. spp. caught	Depth (m)	Temp. (°C) Surface	Bottom	Salinity (‰) Surface	Bottom**
41	22	34°36.2'	76°34.3'	0345	24	*	*	12	17	16.1	16.1	33.4	35.0
42	22	34°34.2'	76°33.6'	0437	25	1.46	*	9	17	16.1	16.1	33.4	35.0
43	22	34°32.8'	76°34.8'	0527	25	+	+	8	17	16.1	16.1	33.4	35.0
44	22	34°31.2'	76°34.0'	0626	36	+	+	7	18	16.3	16.3	34.4	35.6
45	22	34°32.6'	76°34.0'	0730	32	+	+	8	18	16.3	16.9	34.4	35.6
46	22	34°39.3'	76°26.4'	2020	19	382	*	14	15	16.9	17.1	35.1	35.4
47	22	34°43.6'	76°22.6'	2138	23	374	*	12	15	16.8	17.6	34.9	34.0
48	22	34°44.2'	76°22.0'	2310	24	+	*	14	18	17.0	17.5	34.8	35.9
49	23	34°47.5'	76°19.2'	0004	35	Gear fouled	*	*	*	*	*	*	*
50	23	34°51.0'	76°17.0'	0050	25	469	*	13	17	17.0	17.4	35.0	36.1
51	23	34°51.1'	76°15.7'	0200	27	203	*	14	17	17.0	17.4	35.0	36.1
52	23	34°52.6'	76°13.7'	0303	29	174	*	11	17	17.0	17.4	35.0	36.1
53	23	34°57.1'	76°06.9'	0417	26	198	*	11	19	17.4	17.4	35.2	35.8
54	23	34°59.0'	76°03.2'	0521	29	719	+	12	15	17.3	17.7	35.0	35.7
55	23	35°00.7'	76°01.5'	0626	22	248	*	9	15	17.3	17.7	35.0	35.7
56	23	35°01.8'	75°59.0'	0723	25	161	+	7	15	17.3	17.7	35.0	35.7
57	23	35°01.0'	75°57.5'	0929	26	581	+	13	22	17.5	17.7	35.3	35.9
58	23	35°56.0'	75°36.0'	1103	26	246	+	4	37	18.5	18.9	35.4	36.0
59	23	34°54.5'	75°32.5'	1257	20	69	+	3	*	*	*	*	*
60	23	34°53.5'	75°28.5'	1405	21	30	*	4	*	*	*	*	*
61	23	34°54.0'	75°25.0'	1511	20	10	*	1	*	*	*	*	*
62	23	35°45.0'	75°18.5'	2026	26	48	*	10	25	11.5	9.2	33.4	33.4
63	23	35°48.0'	75°30.0'	2227	20	99	*	12	19	11.4	10.0	31.0	32.5
64	24	36°21.5'	75°42.0'	0215	25	34	*	10	23	10.7	9.9	31.7	32.7
65	24	37°07.5'	75°40.5'	0651	24	67	*	9	16	10.1	9.3	31.7	32.3
66	24	37°17.0'	75°34.5'	0843	25	138	+	6	20	10.2	8.5	32.2	32.5
67	24	37°52.0'	75°10.5'	1317	25	39	*	4	28	9.8	8.1	32.4	33.1
68	24	38°22.5'	74°48.0'	1702	20	38	*	9	27	7.9	7.3	33.2	33.5
69	24	38°49.0'	74°50.0'	2013	19	111	*	6	15	8.7	8.2	32.1	32.5

Appendix Table 1.--Continued.

Cruise	stn.	Date	Lat. (N)	Location	Start time	Duration (min)	No.	Total catch wt. (kg)	No. spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity (‰) Surface	Bottom*
D-69-15	1	June 25	40°21.5'	73°47.0'	1017					52	19.2	9.0	*	*
	2	25	40°11.0'	73°42.0'	1131					48	19.4	7.0	*	*
	3	25	40°05.0'	73°31.5'	1305					65	19.4	4.7	*	*
	4	25	39°58.5'	73°22.0'	1405					65	19.6	5.0	*	*
	5	25	39°52.0'	73°11.0'	1540					51	19.7	5.0	*	*
	6	25	39°46.5'	73°00.5'	1644					65	19.5	5.0	*	*
	7	26	38°20.0'	74°32.0'	0247	16	123	+	8	33	21.0	9.1	*	*
	8	26	38°20.0'	74°38.0'	0345	15	128	*	7	37	21.0	9.5	*	*
	9	26	38°20.0'	74°44.0'	0448	16	+	+	6	27	21.1	10.8	*	*
	10	26	38°20.0'	74°51.0'	0550	16	+	+	8	15	20.2	15.4	*	*
	11	26	38°20.0'	74°57.5'	0652	14	+	+	14	21	19.3	16.0	*	*
	12	26	38°20.0'	75°00.0'	0821	15	+	+	12	17	19.0	17.7	*	*
	13	26	38°19.5'	75°04.0'	0955	15	+	+	16	16	19.5	17.5	*	*
	14	26	38°31.0'	74°55.0'	1225	15	5,895	+	13	26	19.2	17.1	*	*
	15	26	38°30.0'	74°50.0'	1410	19	+	+	9	23	22.1	14.6	*	*
	16	26	38°30.0'	74°43.0'	1520	19	49	+	7	29	21.4	11.0	*	*
	17	26	38°30.0'	74°38.0'	1735	15	15	*	4	23	20.7	11.0	*	*
	18	26	38°29.5'	74°30.0'	1848	16	72	*	9	34	21.6	9.5	*	*
	19	26	38°39.5'	74°30.0'	2020	15	+	+	8	34	21.7	10.0	*	*
	20	26	38°39.5'	74°36.5'	2151	19	131	*	10	30	21.5	12.0	*	*
	21	26	38°39.5'	74°42.5'	2308	20	133	*	10	23	19.9	14.0	*	*
	22	27	38°39.5'	74°49.0'	0034	15	590	*	12	18	20.4	17.0	*	*
	23	27	38°39.5'	74°55.5'	0154	15	738	+	12	20	19.5	17.2	*	*
	24	27	38°39.5'	74°59.5'	0318	17	771	+	9	15	20.3	18.4	*	*
	25	27	38°39.5'	75°02.0'	0434	16	366	+	11	13	20.3	19.0	*	*
	26	27	38°47.0'	74°55.0'	0602	13	+	+	11	14	19.0	19.0	*	*
	27	27	38°47.0'	74°52.0'	0700	14	+	+	7	15	19.0	18.5	*	*
	28	27	38°47.0'	74°48.5'	0800	15	+	+	4	16	19.2	17.8	*	*
	29	27	38°47.0'	74°42.0'	0942	10	+	+	11	22	20.2	15.5	*	*
	30	27	38°47.0'	74°35.5'	1040	15	+	+	12	25	20.7	13.3	*	*

Appendix Table 1.--Continued.

Cruise stn.	Date	Lat. (N)	Location Long. (W)	Start time	Duration (min)	Total catch No.	Wt. (kg)	No.spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity (‰) Surface	Salinity (‰) Bottom**
31	27	38°47.0'	74°29.0'	1204	15	65	+	6	24	21.5	12.2	*	*
32	27	38°47.0'	74°23.0'	1327	20	80	*	12	34	21.8	10.8	*	*
33	27	38°57.0'	74°17.5'	1500	22	73	*	8	33	24.1	9.8	*	*
34	27	38°57.0'	74°23.5'	1619	15	53	*	6	24	20.7	11.3	*	*
35	27	38°57.0'	74°30.0'	1730	15	+	+	10	24	20.6	14.8	*	*
36	27	38°56.0'	74°49.0'	1935	13	1111	*	12	12	19.1	18.8	*	*
37	27	38°56.5'	74°47.0'	2038	20	740	+	9	12	19.0	18.8	*	*
38	27	38°56.5'	74°43.0'	2327	12	+	+	10	12	18.8	18.8	*	*
39	28	38°56.5'	74°37.0'	0050	16	+	+	7	12	19.5	19.5	*	*
40	28	38°56.5'	74°47.0'	0210	15	179	*	8	12	19.0	18.8	*	*
41	28	38°56.5'	74°47.0'	0252	14	+	+	11	12	19.0	18.8	*	*
42	28	38°59.0'	74°45.0'	0641	16	+	*	8	12	19.0	18.8	*	*
43	28	39°05.5'	74°41.0'	0745	12	+	+	11	14	19.8	19.0	*	*
44	28	39°06.5'	74°38.0'	0904	15	+	+	10	14	19.8	18.5	*	*
45	28	39°05.5'	74°35.0'	1012	14	+	*	4	12	19.6	18.0	*	*
46	28	39°05.5'	74°40.5'	1117	17	+	*	12	14	*	*	*	*
47	28	39°08.5'	74°40.0'	1234	16	+	*	7	14	*	*	*	*
48	28	39°06.5'	74°40.0'	1317	16	+	*	10	14	*	*	*	*
49	28	39°06.5'	74°28.0'	1450	17	+	+	10	19	20.7	15.3	*	*
50	28	39°06.5'	74°21.5'	1555	15	74	+	8	22	20.7	10.5	*	*
51	28	39°06.5'	74°15.0'	1702	17	21	*	5	25	21.1	10.0	*	*
52	28	39°06.5'	74°09.0'	1805	19	27	*	6	31	21.1	9.3	*	*
53	28	39°16.5'	73°58.0'	1945	18	28	*	4	29	21.5	9.0	*	*
54	28	39°16.5'	74°05.5'	2117	20	88	*	8	29	21.2	14.2	*	*
55	28	39°16.2'	74°12.5'	2252	16	+	*	8	25	20.7	9.4	*	*
56	29	39°16.0'	74°19.0'	0020	15	+	*	9	15	20.5	12.0	*	*
57	29	39°16.0'	74°25.5'	0144	16	+	*	8	14	20.3	16.1	*	*
58	29	39°16.0'	74°29.0'	0247	13	+	*	9	13	20.8	18.0	*	*
59	29	39°16.0'	74°32.0'	0341	15	49	*	10	13	21.0	17.9	*	*
60	29	39°16.5'	74°31.0'	0419	19	+	*	11	13	21.0	17.9	*	*
61	29	39°30.0'	74°15.0'	0715	16	+	*	12	6	20.0	18.0	*	*
62	29	39°30.5'	74°12.5'	0828	14	13	*	13	17	20.4	16.1	*	*

Appendix Table 1.--Continued.

Cruise stn.	Date	Lat. (N)	Long. (W)	Location	Start time	Duration (min)	Total No.	catch Wt. (kg)	No.spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity (‰) Surface	Salinity (‰) Bottom**
63	29	39°30.0'	74°08.5'	0939	16	71	*	9	18	21.2	12.5	*	*	*
64	29	39°30.3'	74°02.0'	1042	16	351	*	5	23	21.2	9.2	*	*	*
65	29	39°30.3'	73°55.5'	1142	15	9	*	5	23	22.0	9.2	*	*	*
66	29	39°30.3'	73°49.0'	1242	19	22	*	10	24	22.4	10.0	*	*	*
67	29	39°30.3'	73°42.0'	1338	18	46	*	8	28	22.8	7.4	*	*	*
68	29	39°46.0'	74°03.5'	1722	13	+	+	11	13	21.8	16.2	*	*	*
69	29	39°46.0'	74°03.5'	1839	15	+	+	8	13	22.6	16.5	*	*	*
70	29	39°56.3'	74°03.0'	2140	15	+	+	12	20	21.2	11.3	*	*	*
D-69-21 Aug.														
1	20	38°20.0'	74°57.5'	0506	15	+	*	8	23	23.2	14.4	27.1	29.0	
2	20	38°19.0'	75°04.0'	0704	17	1,051	+	11	11	23.1	17.5	27.0	28.2	
3	20	38°20.0'	75°00.0'	0919	17	701	*	13	12	22.4	17.3	26.2	28.9	
4	20	38°20.0'	74°51.5'	1136	19	+	*	7	19	22.9	12.3	27.8	28.7	
5	20	38°20.0'	74°44.0'	1330	18	24	*	2	28	23.8	9.5	28.4	28.0	
D-69-23 Sept.														
1	12	33°56.5'	77°43.0'	0432	15	+	*	20	19	25.7	25.7	35.2	34.6	
2	12	33°59.5'	77°48.0'	0854	15	22	*	4	15	25.5	25.5	32.5	32.5	
3	12	34°01.0'	77°51.0'	0958	16	100	*	13	13	25.3	25.3	34.2	34.0	
4	12	34°02.0'	77°52.5'	1109	19	+	*	22	11	25.1	25.1	34.4	34.4	
5	13	34°39.5'	77°00.0'	0931	17	*	100	*	10	14	25.2	25.2	32.3	32.2
6	13	34°37.5'	76°59.5'	1029	17	10	*	4	14	25.1	25.1	32.1	32.3	
7	13	34°34.5'	76°58.5'	1120	17	9	*	5	16	24.9	24.9	32.6	32.7	
8	13	34°29.5'	76°57.0'	1227	16	126	*	14	19	25.1	25.1	32.2	32.5	
9	13	34°39.6'	76°40.0'	1501	14	+	25	11	24.6	24.8	31.2	31.8		
10	13	34°38.0'	76°35.0'	1850	10	+	*	25	14	24.8	25.2	32.2	32.0	
11	13	34°35.0'	76°34.5'	2058	11	465	+	21	17	24.1	24.8	31.8	32.3	
12	13	34°30.5'	76°32.5'	2324	10	+	+	15	17	24.4	24.4	32.2	32.2	
13	14	34°55.5'	75°51.0'	2248	15	+	*	6	24	25.0	25.3	31.5	31.8	

Appendix Table 1.--Continued.

Cruise	stn.	Date	Lat. (N)	Long. (W)	Location	Start time	Duration (min)	Total No.	catch Wt. (kg)	No. spp. caught	Depth (m)	Temp. (°C) Surface	Bottom	Salinity (‰) Surface	Bottom*
14	15	15	34°59.0'	75°55.5'	0014	15	+	*		11	19	24.7	24.7	31.4	31.2
	15	15	35°01.5'	75°58.0'	0120	15	144	*		13	18	23.6	24.0	30.2	30.8
16	15	15	35°02.5'	76°00.0'	0230	16	+	+		23	13	23.7	23.7	29.8	29.9
17	15	15	35°35.0'	75°15.0'	1013	17	+	*		7	28	23.5	19.4	28.8	29.3
18	15	15	35°35.0'	75°21.0'	1142	15	+	*		20	24	23.7	23.2	29.1	29.0
19	15	15	35°35.0'	75°25.0'	1434	41	+	*		8	14	24.3	23.4	28.6	29.0
20	15	15	35°35.0'	75°27.0'	1513	14	81	*		10	10	23.2	23.2	27.1	27.8
21	15	15	36°12.5'	75°33.0'	1924	19	+	*		9	25	24.0	19.0	29.5	29.9
22	15	15	36°12.5'	75°39.0'	2100	10	+	*		15	22	23.7	22.8	29.7	29.6
23	15	15	36°12.5'	75°43.0'	2358	10	+	*		12	19	23.0	23.0	28.1	29.4
24	16	16	36°12.5'	75°45.0'	0100	5	69	*		10	12	23.4	23.0	26.9	28.2
25	16	16	37°09.5'	75°37.5'	0649	10	+	*		19	12	22.1	21.8	29.4	29.3
26	16	16	37°09.5'	75°43.5'	1154	14	+	*		5	12	22.3	21.2	29.6	29.3
27	16	16	37°09.5'	75°46.5'	1300	15	240	*		11	8	22.6	22.2	29.3	29.6
28	16	16	37°46.5'	75°25.0'	1721	10	239	*		14	13	23.3	21.4	28.9	29.1
29	16	16	37°46.5'	75°19.0'	1901	15	+	*		15	18	23.1	19.1	29.2	29.3
30	17	17	38°20.0'	74°52.5'	0002	10	+	*		6	20	22.4	16.5	28.3	28.9
31	17	17	38°20.0'	74°58.5'	0115	10	+	*		11	22	22.5	19.1	28.3	29.1
32	17	17	38°20.0'	75°02.5'	0218	16	494	+		16	14	21.8	21.0	28.3	28.6
33	17	17	38°57.5'	74°37.5'	0808	15	+	*		5	10	19.8	19.5	28.9	29.0
34	17	17	38°57.5'	74°44.0'	0931	15	+	*		6	12	21.0	18.0	29.4	29.6
35	17	17	38°56.0'	74°50.0'	1045	10	+	*		9	12	21.7	19.4	29.3	29.4
36	17	17	39°13.5'	74°37.0'	1335	14	+	*		8	10	21.6	20.6	29.1	29.1
37	17	17	39°14.0'	74°34.0'	1449	22	184	*		3	11	21.6	20.6	29.1	29.1
38	17	17	39°13.5'	74°31.0'	1556	15	+	+		7	18	21.6	15.7	29.1	29.2
39	17	17	39°13.5'	74°25.0'	1708	16	+	*		5	17	22.6	14.5	29.2	29.6
40	17	17	39°27.5'	74°05.5'	1939	15	+	*		2	20	21.5	14.7	29.0	29.4
41	17	17	39°27.0'	74°11.5'	2136	15	+	*		4	16	21.1	15.7	29.0	29.2
42	18	18	39°45.0'	73°53.0'	0008	21	59	+		6	26	22.8	14.0	29.2	29.6
43	18	18	39°45.0'	73°59.5'	0130	15	63	*		7	23	22.4	14.0	29.0	29.5
44	18	18	39°45.0'	74°03.5'	0238	12	+	*		7	13	20.6	15.3	29.0	29.5
45	18	18	39°45.0'	74°05.0'	0343	11	10	*		9	*	*	*	*	*

Appendix Table 1.--Continued.

Cruise stn.	Date	Lat. (N)	Long. (W)	Start time	Duration (min)	Total No.	catch Wt. (kg)	No. spp. caught	Depth (m)	Temp. (°C) Surface	Bottom	Salinity (‰) Surface	Bottom**
D-69-25	Sept.												
1	30	40°05.0'	74°01.5'	1148	15	+	*	10	15	18.5	27.9	28.0	
2	30	40°05.5'	73°59.0'	1248	15	+	*	13	21	18.5	28.2	29.3	
3	30	40°05.0'	73°55.0'	1402	15	8	*	5	20	18.9	28.7	29.4	
4	30	40°05.0'	73°49.0'	1502	15	14	*	5	28	18.9	29.0	29.6	
	Oct.												
5	1	40°40.5'	72°26.0'	0114	22	+	*	12	37	17.2	14.3	29.7	29.9
6	1	40°45.0'	72°29.0'	0323	14	+	*	10	31	17.5	16.9	29.5	29.9
7	1	40°47.5'	72°31.0'	0436	19	+	*	12	22	17.4	17.0	29.4	29.6
8	1	40°48.5'	72°32.5'	0610	15	+	*	18	14	17.3	17.3	29.2	29.6
9	1	40°36.5'	73°22.5'	1100	15	+	*	14	14	17.9	17.8	29.2	29.3
10	1	40°35.0'	73°21.0'	1237	15	103	*	16	16	18.3	17.9	29.1	29.2
11	1	40°32.5'	73°19.5'	1350	15	161	*	11	23	18.3	18.2	29.1	29.6
12	1	40°34.0'	73°20.5'	1449	30	+	*	16	16	18.3	17.9	29.1	29.2
13	1	40°33.5'	73°36.0'	1705	15	+	*	15	11	18.5	18.3	29.3	29.0
	Oct.												
1	30	32°40.0'	79°29.5'	0818	16	58	*	10	16	19.6	19.5	32.6	32.8
2	30	32°45.0'	79°32.5'	1011	12	26	*	8	15	19.4	19.4	32.7	32.5
	Nov.												
3	2	32°59.5'	79°16.0'	1356	15	152	+	7	13	19.5	18.9	32.2	32.7
4	2	32°56.0'	79°11.5'	1410	15	31	*	9	18	19.9	19.3	32.6	32.4
5	2	33°19.5'	79°07.0'	1703	15	178	+	7	9	18.4	18.4	30.5	31.6
6	2	33°18.0'	79°04.0'	1812	15	69	+	16	13	19.3	19.3	32.0	32.0
7	2	33°15.5'	78°58.5'	1939	15	134	+	26	13	19.6	19.2	32.1	32.0
8	2	33°31.0'	78°48.0'	2210	15	72	+	14	13	19.1	19.0	31.6	31.8
9	2	33°34.0'	78°52.5'	2327	16	103	+	20	11	18.5	18.5	32.1	32.5
10	3	33°36.0'	78°55.0'	0049	12	147	+	22	9	18.4	18.0	31.4	31.9
11	3	33°37.0'	78°56.5'	0229	15	146	+	25	7	18.1	17.9	31.3	31.7
12	3	33°40.5'	78°33.0'	0511	15	113	+	18	15	18.8	18.5	31.4	31.6
13	3	33°44.5'	78°35.5'	0707	15	70	+	17	12	18.2	18.2	31.5	31.8
14	3	33°47.5'	78°37.5'	0815	15	61	+	9	9	18.2	18.0	30.5	31.8

Appendix Table 1.--Continued.

Cruise stn.	Date	Lat. (N)	Long. (W)	Location	Start time	Duration (min)	No.	Total catch Wt. (kg)	No.spp. caught	Depth (m)	Temp. (°C)	Salinity (‰)
15	3	33°49.0'	78°38.0'	0940	15	50	+	1.3	9	18.4	18.0	30.0
16	3	34°02.5'	77°53.0'	1645	15	172	+	29	12	18.9	18.5	30.1
17	3	34°01.5'	77°51.0'	1846	15	106	+	26	14	18.9	18.4	30.6
18	3	33°59.5'	77°48.0'	2015	15	335	+	28	14	19.0	18.3	30.8
19	3	33°56.5'	77°43.0'	2205	15	330	+	26	17	19.4	19.2	30.7
20	4	34°40.0'	76°40.0'	0540	10	393	+	20	13	19.4	19.8	30.0
21	4	34°37.0'	76°34.0'	0750	10	3,072	+	17	13	19.0	20.0	30.9
22	4	34°35.0'	76°34.5'	1018	10	332	+	22	16	19.1	20.3	30.0
23	4	34°30.5'	76°32.5'	1231	15	516	+	23	17	19.1	20.2	29.8
24	4	35°01.5'	76°00.0'	1802	15	274	+	20	13	17.3	17.6	27.2
25	4	35°02.0'	75°57.5'	1936	10	224	+	19	14	17.8	17.9	29.8
26	4	34°59.5'	75°55.0'	2109	10	311	+	19	24	17.7	18.9	29.7
27	4	34°55.5'	75°51.0'	2243	10	490	+	19	22	18.2	21.2	30.5
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D-70-7				May								
1	6	39°28.0'	74°15.0'	1557	16	148	41.1	13	10	7.5	6.5	29.0
2	6	39°27.8'	74°13.5'	1702	17	244	71.7	12	13	8.5	6.5	29.5
3	6	39°27.5'	74°09.5'	1821	16	84	27.8	12	16	10.2	6.5	28.6
4	6	39°27.5'	74°03.0'	1940	16	34	20.2	9	20	10.3	6.0	28.1
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D-70-16				July								
1	6	40°36.3'	73°23.4'	1445	15	323	23.9	10	9	19.6	13.0	27.5
2	6	40°35.2'	73°21.0'	1616	20	843	43.3	12	14	18.3	11.4	27.3
3	6	40°32.5'	73°19.0'	1800	16	189	35.4	11	20	21.4	10.1	27.1
4	6	40°28.0'	73°16.0'	1925	16	180	37.5	10	27	21.3	8.2	28.7
5	7	38°19.0'	75°04.0'	0933	15	372	99.8	11	11	19.5	14.5	28.1
6	7	38°20.5'	75°02.0'	1055	16	511	67.5	15	11	20.5	14.4	28.5
7	7	38°58.5'	1300	15	1,349	135.6	11	13	21.6	13.5	28.6	29.1
8	7	38°20.0'	1540	15	35	3.9	5	12	22.1	12.3	28.0	28.6
9	7	38°36.0'	1808	16	429	248.6	14	10	22.8	17.0	27.2	28.0
10	7	38°40.0'	2034	10	242	53.2	10	12	21.0	16.3	27.7	28.0
11	7	38°40.2'	2245	11	335	55.3	11	15	20.7	13.6	21.2	28.4

Appendix Table 1.--Continued.

Cruise stn.	Date	Lat. (N)	Long. (W)	Location	Start time	Duration (min)	Total No.	catch wt. (kg)	No. spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Surface Salinity (‰)	Bottom Salinity (‰)*
12	8	38°40.2'	74°50.0'	0028	15	334	99.2	11	14	20.0	11.0	27.4	29.3	
13	8	38°57.5'	74°37.8'	0347	15	202	50.4	10	9	20.7	12.3	28.5	29.3	
14	8	38°57.2'	74°43.8'	0554	11	1,094	210.8	9	8	19.7	13.2	28.5	28.9	
15	8	38°55.5'	74°50.8'	0748	11	305	40.0	9	11	16.6	13.9	29.4	29.2	
16	8	38°56.0'	74°50.0'	0937	10	1,429	73.3	12	12	16.4	13.2	28.6	29.2	
17	8	39°16.5'	74°30.5'	1324	15	144	22.7	13	11	17.6	10.5	27.6	28.4	
18	8	39°17.4'	74°29.0'	1453	14	144	23.0	11	11	18.0	10.1	27.5	28.6	
19	8	39°17.0'	74°23.5'	1633	15	330	40.9	8	12	19.7	8.5	28.4	28.8	
20	8	39°17.0'	74°17.2'	1807	15	60	5.6	5	16	20.4	8.2	28.7	29.2	
21	8	39°30.0'	74°15.5'	1958	15	588	72.3	11	7	17.5	11.2	28.4	28.7	
22	8	39°30.0'	74°13.0'	2130	15	99	17.3	11	16	19.4	8.2	28.5	29.3	
23	8	39°30.0'	74°09.2'	2239	16	139	36.4	10	17	20.1	7.8	28.6	29.2	
24	9	39°30.0'	74°02.6'	0013	15	157	29.2	12	21	19.3	7.8	29.1	30.0	
25	9	39°45.2'	73°52.7'	0259	15	162	21.7	11	25	21.3	8.4	29.2	30.3	
26	9	39°45.0'	73°59.0'	0440	15	187	34.4	9	20	19.4	7.6	29.0	29.8	
27	9	39°45.0'	74°03.0'	0606	16	536	48.8	8	12	16.2	8.9	28.9	29.5	
28	9	39°45.8'	74°03.9'	0737	17	452	66.8	9	11	14.2	9.5	28.2	29.2	
29	9	39°57.0'	74°03.4'	0935	12	336	50.1	12	10	15.0	9.8	28.8	29.4	
30	9	40°10.0'	74°00.5'	1200	15	116	26.2	7	19	20.3	8.7	22.2	29.8	
31	9	40°05.0'	73°59.0'	1322	15	162	23.6	9	20	21.2	7.8	29.5	30.6	
32	9	40°05.0'	73°55.0'	1440	25	119	9.6	9	22	21.7	7.3	29.7	30.4	
33	9	40°05.0'	73°49.0'	1620	15	57	5.4	7	26	21.9	6.1	29.8	31.1	
34	9	40°11.4'	73°59.7'	1803	15	982	159.1	13	10	17.2	9.8	29.6	31.4	
35	9	40°11.4'	73°59.7'	1934	15	795	96.8	14	10	16.8	10.3	29.7	30.5	
36	9	40°25.4'	73°57.5'	2235	11	371	33.2	13	6	18.7	14.7	30.5	30.6	
37	10	40°25.0'	73°54.9'	0034	12	129	17.8	10	18	19.5	9.5	29.7	32.3	
38	10	40°25.1'	73°51.1'	0209	3	51	10.6	8	22	19.7	7.2	29.7	31.4	
39	10	40°33.9'	73°35.2'	0500	15	177	21.3	11	7	21.3	20.2	29.3	29.3	

G5

Appendix Table 1.--Continued.

Cruise stn.	Date	Lat. (N)	Long. (W)	Location	Start time	Duration (min)	Total catch No.	Wt. (kg)	No.spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity (‰) Surface	Salinity (‰) Bottom**
D-70-19	Aug. 1	40°35.7'	73°25.1'	1310	15	244	14.0	11	9	23.2	16.9	29.4	29.7	
2	3	40°35.5'	73°21.8'	1350	15	182	15.6	12	13	22.3	15.6	29.9	29.9	
3	3	40°31.9'	73°20.6'	1640	15	40	12.2	7	19	22.8	14.2	30.0	30.3	
4	3	40°28.0'	73°15.5'	1804	15	40	8.6	7	28	23.8	9.9	30.1	30.4	
5	4	38°19.0'	75°04.0'	0813	10	117	20.4	8	9	19.7	15.6	29.4	30.3	
6	4	38°20.0'	75°02.5'	0910	15	177	32.0	13	10	20.0	15.3	30.1	30.3	
7	4	38°20.0'	74°58.5'	1044	15	739	74.8	4	21	19.9	12.4	30.1	30.9	
8	4	38°20.0'	74°52.0'	1154	15	1,494	151.5	7	18	22.7	11.2	30.3	30.8	
9	4	38°35.7'	75°02.3'	1455	15	1,952	141.8	14	10	12.5	15.3	29.4	29.8	
10	4	38°39.9'	75°01.5'	1654	15	1,752	496.3	17	13	18.7	16.6	29.4	29.7	
11	4	38°40.7'	75°03.2'	1921	5	201	31.2	10	6	17.7	17.5	29.8	29.8	
12	4	38°40.0'	74°57.0'	2253	15	119	43.0	10	16	17.4	16.5	29.9	30.1	
13	5	38°40.6'	74°49.0'	0019	15	629	109.6	10	15	21.1	11.5	30.2	30.9	
14	5	38°57.5'	74°37.8'	0354	10	1,147	136.8	9	9	21.7	13.5	30.5	30.6	
15	5	38°55.2'	74°43.8'	0653	10	57	5.8	8	9	21.2	13.6	30.5	30.4	
16	5	38°55.5'	74°50.8'	0750	16	560	81.1	14	11	17.0	14.3	30.1	30.4	
17	5	38°56.3'	74°50.3'	0943	16	219	16.4	11	9	20.0	12.8	30.4	30.3	
18	5	38°55.6'	74°51.1'	1043	15	160	47.4	13	11	20.1	13.2	30.3	30.2	
19	5	39°14.2'	74°35.4'	1330	15	143	40.6	8	7	18.5	15.4	29.5	29.8	
20	5	39°13.7'	74°33.0'	1437	15	120	15.7	9	11	17.9	10.8	29.7	29.9	
21	5	39°12.3'	74°29.6'	1558	15	25	2.3	4	15	20.4	9.8	30.0	30.0	
22	5	39°10.2'	74°24.1'	1712	21	39	5.1	5	18	23.3	9.6	30.4	30.4	
23	5	39°28.1'	74°15.6'	1934	17	1,070	164.8	15	7	20.8	18.1	28.8	29.6	
24	5	39°30.0'	74°13.0'	2105	15	756	132.4	10	14	21.8	14.7	29.7	29.8	
25	5	39°30.0'	74°09.1'	2240	15	67	15.0	9	17	21.9	9.7	29.5	30.1	
26	5	39°30.0'	74°04.0'	2348	15	73	16.3	9	20	21.7	7.8	29.9	30.2	
27	6	39°45.1'	73°52.7'	0235	15	65	14.3	8	25	22.7	7.4	30.2	30.6	
28	6	39°45.0'	73°59.0'	0408	15	71	15.1	9	18	22.7	9.0	30.3	30.0	
29	6	39°45.0'	74°03.0'	0530	18	743	116.4	12	12	21.8	8.3	28.8	29.6	
30	6	39°46.0'	74°04.2'	0718	15	291	30.0	9	12	22.2	8.5	28.7	29.8	

Appendix Table 1.--Continued.

Cruise stn.	Date	Lat. (N)	Location Long. (W)	Start time	Duration (min)	Total catch No.	Wt. (kg)	No. spp. caught	Depth (m)	Temp. (°C) Surface Bottom	Salinity (‰) Surface Bottom*
31	6	39°56.7'	74°03.3'	0935	15	439	64.1	12	16	22.0	11.4
32	6	40°06.1'	74°00.9'	1201	15	1,065	157.6	12	17	21.6	11.4
33	6	40°05.5'	73°58.9'	1348	17	394	32.4	9	18	22.6	10.0
34	6	40°05.0'	73°55.0'	1535	15	61	48.2	9	20	23.4	9.6
35	6	40°05.0'	73°48.6'	1933	30	31	9.2	5	26	22.7	8.8
36	6	40°11.0'	74°00.0'	2152	15	156	31.7	7	10	21.8	15.0
37	7	40°24.1'	73°45.4'	0131	10	82	21.7	8	31	23.2	9.6
38	7	40°24.5'	73°51.2'	0311	10	62	10.2	5	18	23.1	13.0
39	7	40°33.6'	73°34.6'	0634	15	201	36.1	13	7	21.0	18.7
40	7	40°33.6'	73°34.6'	0755	15	379	51.5	15	8	20.2	17.7
D-71-3	Mar.	38°01.0'	75°14.0'	0626	15	105	16.1	11	8	4.9	4.7
1	30	36°26.2'	75°49.5'	1534	15	151	34.3	11	8	6.7	6.7
2	30	36°08.0'	75°43.0'	1750	15	41	41.1	9	13	6.5	6.5
3	30	35°49.5'	75°32.0'	2024	15	40	31.8	8	13	6.5	6.5
4	30	35°51.0'	75°26.0'	2157	15	8	4.9	3	23	6.2	6.2
5	30	34°39.7'	76°40.3'	0941	15	21	0.7	8	9	10.1	10.2
6	31	34°37.0'	76°33.7'	1053	15	34	6.6	7	11	10.1	10.1
7	31	34°37.7'	76°34.5'	1206	15	180	24.6	10	14	10.4	10.0
8	31	34°29.8'	76°32.5'	1345	15	917	80.3	10	15	11.3	10.7
9	31	34°21.0'	76°32.5'	1607	15	50	35.7	6	26	11.9	12.3
10	31	33°55.0'	77°55.0'	2315	15	304	28.1	8	10	10.9	10.8
11	31	77°53.7'	0227	15	414	50.6	1.3	11	10.9	10.6	10.6
12	1	33°53.5'	0454	15	167	15.8	1.3	14	11.1	11.0	11.8
13	1	33°51.3'	0653	15	708	34.2	1.7	16	11.3	11.3	32.0
14	1	33°47.5'	1550	15	131	15.8	1.2	11	15.1	11.3	32.5
15	1	33°15.8'	1711	15	415	32.1	1.7	9	14.1	11.3	23.9
16	1	33°14.7'	1859	15	66	7.2	1.2	12	13.4	11.5	26.0
17	1	33°13.0'	2111	15	152	30.6	1.6	21	13.7	12.2	30.7
18	1	33°06.0'									32.1
Apr.											

Appendix Table 1.--Continued.

Cruise stn.	Date	Lat. (N)	Long. (W)	Location time	Start time	Duration (min)	No.	Total catch Wt. (kg)	No. spp. caught	Depth (m)	Temp. (°C)	Salinity (‰)
19	2	32°34.5'	79°58.5'	0600	15	121	131.9	11	11	13.5	12.1	28.2
20	2	32°30.5'	79°55.5'	0735	15	6	2.8	2	11	12.7	12.9	29.5
21	2	32°18.0'	79°46.0'	0943	5	8	2.4	4	23	13.7	13.7	31.8
22	2	31°56.5'	80°48.8'	1622	15	395	28.6	11	8	14.1	13.3	29.3
23	2	31°55.0'	80°47.0'	1840	15	173	18.4	10	11	14.2	13.3	29.2
24	2	31°47.0'	80°35.5'	2100	15	73	6.0	8	16	14.4	14.1	31.3
25	3	30°59.0'	80°55.0'	0320	15	81	7.1	14	26	15.4	15.3	32.3
26	3	31°02.0'	81°06.0'	0620	15	148	5.5	10	15	15.0	15.0	30.9
27	3	31°04.0'	81°10.0'	0851	15	91	25.0	12	9	14.9	14.9	29.5
28	3	30°45.5'	81°23.7'	1225	15	82	5.6	14	9	15.7	15.1	30.2
29	3	29°56.0'	81°15.0'	1806	15	115	198.4	17	13	17.5	17.5	38.8
30	3	29°51.0'	81°09.5'	1956	15	349	147.7	14	18	17.5	17.6	33.9
31	3	29°51.5'	81°00.0'	2141	15	126	10.8	17	18	17.6	17.6	33.9
32	4	29°05.0'	80°54.0'	0333	15	94	9.4	15	14	18.3	18.2	33.7
33	4	29°07.0'	80°49.0'	0630	15	239	20.8	20	19	18.6	18.5	34.0
34	4	29°07.0'	80°43.0'	0830	15	61	25.9	8	18	18.7	18.6	33.8
35	7	34°13.7'	77°46.0'	0100	15	227	57.0	13	9	11.5	11.5	31.8
36	7	34°12.0'	77°45.5'	0235	15	71	19.2	13	14	11.8	11.8	31.9
37	7	35°02.7'	75°59.5'	1300	15	1,370	64.7	15	11	10.5	10.5	28.6
38	7	35°01.2'	75°57.6'	1455	15	243	16.7	13	18	10.6	10.6	28.1
39	7	35°48.5'	75°30.0'	2234	15	142	105.3	12	18	7.9	7.9	27.3
40	8	38°45.5'	74°47.0'	1610	30	95	24.3	11	16	5.5	5.3	29.5
41	9	39°50.0'	74°00.0'	0500	30	95	20.5	13	18	4.6	4.6	29.2
D-71-11	July											
1	12	39°43.5'	73°52.5'	1530	15	5	1.6	2	20	23.1	7.8	31.2
2	12	39°45.0'	73°58.7'	1705	15	22	7.0	6	16	23.1	9.5	31.5
3	12	39°46.0'	74°02.0'	1811	15	51	13.8	6	13	21.0	18.9	31.2
4	12	39°46.2'	74°04.5'	1930	15	1,260	203.7	9	13	21.3	21.4	31.0

Cruise stn.	Date	Location	Lat. (N)	Long. (W)	Start time	Duration (min)	Total catch No.	Wt. (kg)	No. spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity (‰) Surface	Salinity (‰) Bottom*
5	13	38°52.3'	74°38.2'	0235	15	1,250	194.3	7	10	21.7	15.1	31.5	31.9	
6	13	38°55.0'	74°43.5'	0428	15	724	129.1	12	14	21.4	16.4	31.4	31.6	
7	13	38°56.5'	74°46.7'	0625	15	1,278	198.0	12	13	20.5	20.1	31.3	31.4	
8	13	38°55.5'	74°51.0'	0827	15	271	87.6	15	13	20.1	20.1	31.4	31.5	
9	13	38°19.4'	75°05.0'	1356	15	208	86.5	11	7	22.4	21.9	30.9	30.9	
10	13	38°18.8'	75°02.2'	1518	15	696	153.7	12	17	23.4	21.4	31.1	31.1	
11	13	38°18.3'	74°58.6'	1811	15	3,082	371.4	10	17	23.0	14.4	31.1	32.1	
12	13	38°17.1'	74°52.0'	2025	15	403	46.4	7	23	23.0	10.8	31.2	32.4	
13	14	35°48.5'	75°31.0'	1152	15	261	97.3	6	16	25.4	16.8	24.7	31.9	
14	14	35°49.8'	75°29.6'	1345	15	115	15.4	7	23	25.4	15.7	27.3	32.0	
15	14	35°50.7'	75°26.0'	1517	15	260	9.5	5	28	23.9	14.9	29.1	32.1	
16	14	35°52.4'	75°20.2'	1638	15	201	10.6	5	29	24.2	12.6	30.2	32.8	
17	15	35°02.5'	75°57.5'	0105	15	395	123.8	16	11	24.8	23.5	35.4	35.6	
18	15	35°01.0'	75°57.5'	0330	15	1,844	121.3	15	20	25.3	23.9	35.3	36.4	
19	15	34°59.0'	75°55.1'	0545	15	1,643	34.7	12	28	25.3	23.5	35.4	36.6	
20	15	34°55.8'	75°51.0'	0750	15	760	10.5	6	27	26.2	24.1	35.8	36.6	
21	15	34°39.1'	76°36.8'	1450	15	964	45.3	15	12	27.1	25.5	34.7	34.7	
22	15	34°37.8'	76°35.9'	1635	15	520	25.1	14	14	27.3	25.8	34.9	35.3	
23	15	34°34.8'	76°34.4'	1825	15	612	29.3	14	14	26.5	24.8	34.9	35.3	
24	15	34°30.0'	76°32.5'	2034	15	44	61.1	10	17	26.6	25.8	34.9	35.3	
25	17	29°05.3'	80°54.0'	1108	15	1,224	152.9	14	16	26.2	24.5	36.4	36.6	
26	17	29°06.5'	80°50.5'	1228	15	10	137.4	5	19	26.7	22.6	36.5	36.3	
27	18	29°55.2'	81°14.5'	1805	15	148	17.2	12	11	27.5	26.5	36.8	36.7	
28	18	29°56.0'	81°11.5'	1910	15	496	19.7	16	19	27.4	26.4	36.7	36.7	
29	19	31°22.8'	81°10.5'	0415	15	110	6.0	8	7	28.7	28.8	34.4	35.8	
30	19	31°21.2'	81°05.0'	0543	15	91	8.9	10	14	28.5	28.6	36.3	36.5	
31	19	32°10.0'	80°32.5'	1147	15	36	3.7	9	9	29.2	29.2	34.3	35.3	
32	19	32°06.8'	80°28.0'	1255	15	32	3.1	9	16	29.1	28.4	35.4	36.1	

Appendix Table 1.--Continued.

Cruise	stn.	Date	Lat. (N)	Location Long. (W)	Start time	Duration (min)	No.	Total catch wt. (kg)	No.spp. caught	Depth (m)	Temp. (°C)	Salinity (‰)	
33	19	31°57.0'	80°14.8'	1505	15	18	0.8	2	27	28.9	27.3	36.6	
34	19	32°34.9'	79°58.7'	1920	15	187	16.5	13	11	28.7	29.2	35.0	
35	19	32°30.7'	79°55.5'	2100	15	23	3.3	9	11	28.4	28.4	35.8	
36	20	33°47.7'	78°42.0'	0645	15	68	7.2	15	8	27.2	27.2	35.4	
37	20	33°44.0'	78°38.5'	0810	15	13	1.4	5	12	26.1	24.5	35.4	
38	20	33°32.2'	78°27.0'	1025	15	1,179	142.4	11	22	26.7	24.8	35.1	
39	20	33°39.3'	77°40.8'	1605	15	1,003	78.4	8	26	26.6	25.3	35.8	
40	20	33°51.3'	77°51.5'	1840	15	838	79.6	16	18	27.5	25.3	35.3	
41	21	36°48.0'	75°31.8'	1815	15	631	23.4	5	18	24.1	14.5	30.5	
42	21	36°46.2'	75°50.0'	2008	15	874	23.6	13	16	21.2	16.0	31.0	
43	21	36°45.5'	75°56.0'	2126	15	190	22.0	10	8	23.3	21.5	25.7	
20	44	22	37°35.8'	75°09.3'	0425	15	572	68.8	6	28	23.3	10.0	31.1
	45	22	37°43.2'	75°25.8'	0645	15	64	6.2	10	14	22.6	13.2	31.4
	46	22	37°46.0'	75°31.0'	0815	15	507	145.8	19	8	21.3	20.8	31.7
	47	22	38°36.5'	75°02.6'	1538	15	2,786	346.5	21	13	22.9	22.3	30.8
	48	22	38°38.8'	74°57.0'	1833	15	3,457	512.2	13	18	20.7	17.9	30.7
	49	22	38°37.0'	74°38.5'	2142	15	108	12.8	7	32	22.7	7.5	31.2
D-71-14	Aug.												
1	23	40°42.0'	72°55.7'	1450	15	908	15.0	15	12	17.1	15.3	32.5	32.1
2	23	40°40.0'	72°55.0'	1652	15	113	31.4	6	23	18.5	12.8	31.2	31.7
3	23	40°37.6'	72°54.0'	1815	15	58	17.7	8	27	19.7	10.0	31.0	32.0
4	23	40°28.5'	72°50.5'	1948	15	244	46.6	8	47	21.3	6.5	31.2	32.2
5	23	40°14.0'	72°44.0'	2225	15	114	22.1	9	52	21.3	4.7	30.6	32.4
6	24	38°55.7'	74°51.4'	1202	15	297	60.2	15	11	21.1	20.7	31.2	31.5
7	24	38°56.5'	74°46.8'	1347	15	92	9.8	6	11	21.9	21.6	31.3	31.4
8	24	38°54.9'	74°43.7'	1513	15	2,000	211.7	9	14	21.8	20.1	31.1	31.4
9	24	38°49.5'	74°32.8'	1726	15	53	5.1	5	24	22.0	11.8	31.5	31.5
10	24	38°47.0'	74°27.2'	1835	15	33	4.1	7	24	22.9	9.2	31.7	32.1
11	24	38°41.5'	74°16.5'	2005	15	87	7.8	9	42	24.3	6.5	31.7	31.6
12	24	38°36.5'	74°06.0'	2150	15	45	4.2	10	53	24.8	5.6	32.5	32.5

Appendix Table 1.-Continued.

Cruise stn.	Date	Lat. (N)	Location Long. (W)	Start time	Duration (min)	Total No.	Total catch Wt. (kg)	No.spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity (‰) Surface	Salinity (‰) Bottom*
13	25	38°11.0'	74°14.6'	0112	15	45	6.0	9	43	24.6	6.4	32.5	32.1
14	25	38°12.9'	74°27.0'	0323	15	121	15.0	10	34	24.2	7.5	32.1	32.2
15	25	38°15.0'	74°39.5'	0526	15	270	17.7	5	30	23.1	7.8	31.7	31.8
16	25	38°17.3'	74°52.0'	0713	15	1,173	70.8	8	11	22.8	18.6	31.6	31.2
17	25	38°18.2'	74°58.5'	0840	15	3,198	318.3	9	17	21.7	17.2	31.5	31.4
18	25	38°19.5'	75°04.5'	1125	15	1,211	206.6	15	13	21.4	20.7	30.9	30.9
19	25	38°36.5'	75°03.0'	1529	15	295	193.4	17	12	21.5	21.2	30.8	30.8
20	26	39°04.0'	73°34.7'	0017	15	104	11.6	6	47	24.0	5.2	31.8	32.5
21	26	39°10.3'	73°45.0'	0212	15	143	13.6	10	34	23.6	7.3	31.8	32.3
22	26	39°16.3'	73°55.7'	0414	15	78	9.4	8	31	23.0	7.6	31.6	32.0
23	26	39°22.4'	74°06.0'	0601	15	99	6.9	6	20	23.1	9.8	31.6	31.7
24	26	39°25.5'	74°11.0'	0710	15	69	20.1	7	17	21.9	11.3	31.0	31.6
25	26	39°27.2'	74°14.0'	0820	15	253	13.4	5	13	21.8	14.4	31.1	31.2
26	26	39°30.0'	74°15.5'	0937	15	264	46.6	8	9	21.7	19.2	30.8	31.0
27	26	40°05.8'	74°00.2'	1356	15	151	15.7	7	13	22.2	12.0	30.8	31.2
28	26	40°05.7'	73°54.5'	1555	15	43	16.3	7	22	22.8	8.6	31.1	31.9
29	26	40°05.0'	73°48.2'	1712	15	72	4.6	6	28	22.8	8.1	31.2	31.8
30	26	40°04.5'	73°41.5'	1846	15	19	4.4	7	33	22.7	7.2	31.1	32.3
31	26	40°04.0'	73°35.0'	2001	15	65	6.3	8	38	22.5	5.7	30.9	32.4
32	26	40°02.7'	73°22.0'	2158	15	73	20.0	8	47	21.9	5.5	30.7	32.3
33	27	40°01.2'	73°09.0'	0001	15	117	18.7	9	45	21.0	5.5	31.1	31.3
34	27	40°32.5'	73°20.5'	0638	15	129	33.0	6	21	19.2	13.0	31.0	31.7
Del-71-2 Nov.													
1	2	39°46.5'	74°04.0'	1417	15	344	28.0	10	10	17.4	17.4	30.5	30.5
2	2	39°45.7'	74°01.0'	1535	15	197	47.5	8	14	17.3	17.1	30.6	31.3
3	2	39°45.5'	73°58.5'	1808	15	167	30.0	8	20	17.3	17.0	30.6	31.3
4	2	39°44.6'	73°51.5'	1950	15	335	71.5	9	37	17.5	16.4	30.5	31.5
5	2	39°41.6'	73°46.8'	2125	15	131	49.4	9	18	17.8	17.0	30.1	31.5
6	2	39°40.0'	73°39.5'	2310	15	205	44.4	8	31	17.7	16.6	30.7	32.0

Appendix Table 1.--Continued.

Cruise stn.	Date	Lat. (N)	Long. (W)	Location	Start time	Duration (min)	Total catch No.	Wt. (kg)	No.spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity (‰) Surface	Salinity (‰) Bottom*
7	3	39°37.0'	73°27.2'	0115	15	78	36.6	11	32	17.4	15.5	31.5	32.7	
8	3	39°34.5'	73°14.6'	0307	15	142	89.3	11	37	17.3	13.5	31.7	32.3	
9	3	40°36.5'	73°21.0'	0945	Trawl hung and catch lost				10	17.2	17.0	30.8	31.3	
Del-71-3	Nov.	1	9	37°08.5'	75°48.0'	1108	15	1,014	110.4	15	8	14.8	14.8	30.8
		2	9	37°06.5'	75°42.5'	1315	15	461	27.8	10	13	16.6	16.4	31.2
		3	9	37°04.8'	75°36.7'	1434	15	132	47.6	6	18	16.8	16.6	31.2
		4	9	37°01.5'	75°25.5'	1554	15	18	77.1	6	25	16.9	16.6	31.6
		5	9	36°57.0'	75°12.2'	1815	15	41	36.7	9	39	16.7	16.5	32.9
		6	9	36°53.5'	75°01.5'	1939	15	97	38.8	12	40	17.0	16.7	33.0
		7	10	35°02.0'	76°00.5'	0754	15	996	335.6	25	12	16.3	20.1	26.3
22		8	10	34°59.0'	75°55.0'	1107	15	10	1.9	5	25	19.9	21.0	32.0
		9	10	34°55.5'	75°51.5'	1215	15	1,374	141.4	13	20	20.0	20.8	32.7
		10	10	34°48.5'	75°42.5'	1406	15	22	2.7	5	44	19.2	23.1	31.7
		11	10	34°43.6'	75°35.5'	1558	30	71	4.8	10	150	25.8	15.0	36.1
		12	11	33°55.5'	77°54.0'	0402	15	65	9.6	13	12	18.6	18.7	34.1
		13	11	33°51.2'	77°51.4'	0514	15	86	29.1	14	14	18.8	18.8	34.0
		14	11	33°47.5'	77°48.0'	0626	15	126	20.5	14	17	19.3	19.3	34.5
27		15	11	33°39.5'	77°40.5'	0748	15	7	1.8	5	19	20.4	20.4	35.1
		16	11	33°31.6'	77°33.3'	0903	15	8	1.0	2	17	22.5	22.4	36.0
		17	11	33°23.5'	77°26.0'	1027	15	17	3.0	4	29	24.8	24.8	35.8
		18	11	32°55.5'	78°26.5'	1614	15	3,807	391.4	15	39	24.0	23.4	36.1
		19	11	33°00.8'	78°36.5'	1807	Trawl hung and catch lost			30	22.5	22.3	36.0	35.8
		20	11	33°06.0'	78°48.0'	2330	15	15	4.7	7	20	20.8	20.6	35.9
		21	12	33°10.5'	78°58.0'	0105	15	14	0.9	7	14	18.4	19.2	26.0
23		22	12	33°16.0'	79°07.0'	0223	15	81	11.4	16	9	18.0	18.8	32.7
		23	12	31°56.4'	80°49.3'	1430	15	85	4.8	14	10	18.6	19.2	31.6
		24	12	31°53.0'	80°44.5'	1541	15	23	6.7	8	12	18.4	19.8	31.6
		25	12	31°51.7'	80°41.0'	1715	15	110	11.0	9	15	19.2	19.6	32.9
		26	12	31°43.3'	80°31.0'	1924	15	90	11.0	18	19	20.6	20.8	35.0
		27	12	31°36.7'	80°22.5'	2055	15	640	68.2	28	24	22.0	21.9	35.9

Cruise stn.	Date	Location	Start time	Duration (min)	Total catch No.	wt. (kg)	No.spp. caught	Depth (m)	Temp. (°C) Surface Bottom	Salinity (‰) Surface Bottom**
28	13	31°30.7'	80°13.5'	0051	15	71	8.7	12	33	22.5
29	13	29°28.6'	80°30.8'	1006	15	441	258.7	19	40	25.4
30	13	29°55.8'	80°42.0'	1245	15	99	15.8	11	33	24.1
31	13	29°52.8'	80°53.0'	1417	15	52	8.3	5	24	23.1
32	13	29°50.0'	81°04.0'	1542	15	42	9.6	9	19	22.2
33	13	29°48.5'	81°09.5'	1650	15	95	9.8	13	19	22.1
34	13	29°47.0'	81°15.1'	1845	15	237	12.1	14	12	20.7
35	13	29°55.0'	81°14.5'	2043	15	707	96.1	24	12	20.5
36	14	29°12.2'	80°10.0'	0519	15	215	16.4	16	84	26.4
37	14	29°08.0'	80°17.0'	0713	15	93	6.4	17	41	24.7
38	14	29°03.0'	80°27.0'	0835	15	44	9.3	10	27	23.4
39	14	28°57.5'	80°36.8'	0955	15	26	7.4	8	16	22.8
40	14	28°55.0'	80°41.5'	1047	15	261	33.8	13	19	22.8
41	14	28°52.8'	80°47.0'	1218	15	76	3.0	7	12	22.5
42	14	29°05.2'	80°54.0'	1400	15	595	29.1	26	16	21.3
43	15	30°54.0'	80°32.3'	0001	15	89	13.1	23	34	23.3
44	15	30°56.5'	80°43.5'	0134	15	147	18.3	23	28	22.1
45	15	30°59.1'	80°55.0'	0302	15	42	89.4	14	22	21.2
46	15	31°01.8'	81°06.0'	0425	15	27	105.3	8	16	19.3
47	15	31°03.0'	81°10.7'	0548	15	21	1.9	9	12	19.3
48	15	31°04.0'	81°16.0'	0658	15	15	5.8	8	10	19.0
49	15	32°01.2'	79°33.3'	1713	15	1,550	168.8	15	41	23.9
50	15	32°09.5'	79°40.0'	1904	15	193	19.6	15	32	22.3
51	15	32°20.0'	79°46.0'	2255	15	182	20.4	23	28	21.1
52	16	32°26.5'	79°52.5'	0040	15	21	5.3	12	13	19.5
53	16	32°30.8'	79°55.5'	0135	15	20	2.9	9	11	18.4
54	16	32°34.4'	79°58.5'	0240	15	88	6.8	16	12	17.8
55	16	34°02.5'	76°42.5'	1950	15	578	61.0	22	36	25.2
56	16	34°11.5'	76°47.0'	2022	15	326	57.1	29	31	23.3

Cruise stn.	Date	Location	Start time	Duration (min)	Total No.	catch wt. (kg)	No. spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity (‰) Surface	Salinity (‰) Bottom**
57	17	34°21.0' 76°52.0'	0105	15	7112	96.6	29	25	20.5	21.0	35.8	35.8
58	17	34°30.1' 76°56.1'	0348	15	14,020	1,486.9	19	20	19.7	19.9	34.5	34.6
59	17	34°39.4' 77°01.0'	0655	10	606	81.7	21	13	18.1	18.9	33.3	33.4
60	17	35°47.5' 75°29.3'	2108	15	1,383	276.8	12	17	16.3	16.5	29.9	30.0
61	17	35°50.6' 75°26.3'	2255	15	122	57.3	15	22	16.6	16.6	30.9	30.8
62	18	35°52.4' 75°20.3'	0015	15	49	71.5	11	25	16.3	16.3	32.1	32.0
63	18	35°55.5' 75°08.6'	0212	15	20	33.7	5	33	16.7	16.7	33.6	33.6
64	18	35°58.3' 74°57.8'	0336	15	44	114.0	10	59	16.7	17.5	33.9	34.8
65	18	38°01.0' 75°14.3'	1532	15	211	87.3	16	12	13.7	13.1	30.1	30.1
66	18	37°59.0' 75°08.5'	1628	15	87	84.8	9	14	13.9	13.6	30.3	30.5
67	18	37°57.2' 75°02.5'	1735	15	77	48.9	11	20	14.2	14.2	31.1	32.0
68	18	37°53.9' 74°49.2'	1910	15	81	49.9	9	29	14.9	14.9	33.1	33.0
Del-72-8 Mar.												
1	21	35°47.5' 75°29.5'	1015	15	456	16.2	15	14	8.7	9.2	29.6	30.2
2	21	35°51.0' 75°25.5'	1122	15	33	35.1	11	23	8.8	8.3	28.9	31.5
3	21	35°52.5' 75°19.5'	1238	15	48	57.1	6	27	8.9	8.3	31.9	32.5
4	21	35°55.5' 75°08.0'	1355	15	43	88.7	6	28	9.5	9.2	31.9	33.7
5	21	35°57.5' 74°57.5'	1538	15	167	285.2	5	62	10.0	11.4	32.2	33.8
6	21	36°02.0' 74°47.5'	1700	30	66	11.0	9	140	17.7	11.6	35.5	*
7	22	33°19.5' 77°16.5'	1949	15	15	1.4	7	49	19.7	17.8	36.3	36.4
8	22	33°27.0' 77°24.0'	2133	Trawl hung and catch lost		105.2	18	31	16.0	16.0	35.8	35.8
9	22	33°35.0' 77°31.5'	2309	15	726			24	15.0	15.0	35.8	35.6
10	23	34°43.0' 77°38.8'	0057	15	616	44.7	15	23	14.8	14.7	35.6	35.6
11	23	33°50.5' 77°46.0'	0213	15	163	31.1	13	17	13.9	13.9	34.7	34.9
12	23	33°57.5' 77°52.0'	0443	15	51	9.4	11	16	13.5	13.5	33.9	34.2
13	23	32°49.0' 79°39.5'	1722	15	96	17.3	5	10	15.7	15.7	32.8	32.9
14	23	32°46.0' 79°35.0'	1826	15	20	14.1	7	12	15.4	15.4	33.1	33.3
15	23	32°43.0' 79°30.0'	1925	15	19	4.9	7	12	15.6	15.6	33.8	34.6
16	23	32°37.0' 79°20.5'	2043	15	2,352	231.5	20	24	16.0	16.3	35.1	35.6
17	23	32°30.5' 79°11.5'	2218	15	1,199	356.2	21	35	17.1	17.0	35.9	35.8

Appendix Table 1.--Continued.

Cruise stn.	Date	Location Lat. (N)	Long. (W)	Start time	Duration (min)	Total No.	catch wt. (kg)	No. spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity (‰) Surface	Salinity (‰) Bottom
18	24	32°24.3'	79°02.5'	0006	15	115	9.5	17	42	18.1	16.8	35.8	36.0
19	24	32°18.0'	78°55.0'	0208	30	542	34.8	12	145	21.0	14.8	36.5	*
20	24	31°24.0'	81°09.0'	1342	15	21	26.7	7	8	16.2	15.7	31.0	31.4
21	24	31°22.5'	81°03.5'	1441	15	30	15.2	6	14	16.2	16.0	30.1	32.0
22	24	31°20.5'	80°58.0'	1545	15	12	5.5	4	15	17.5	16.1	31.2	32.5
23	24	31°16.5'	80°47.0'	1711	15	18	302.2	6	21	17.9	16.9	34.4	33.5
24	24	31°13.0'	80°36.0'	1852	15	20	5.8	7	25	18.5	18.2	34.5	34.5
25	24	31°09.0'	80°25.0'	2005	15	35	14.1	13	30	19.1	19.6	35.1	35.4
26	24	31°05.0'	80°12.0'	2150	15	60	6.3	16	44	21.6	21.3	36.6	36.3
27	24	30°59.5'	79°58.0'	2322	15	125	9.5	13	95	22.0	14.5	36.4 (40)	
28	25	29°45.8'	80°15.0'	0835	15	No finfish	caught	147	23.6	10.0	36.5	36.4 (15)	
29	25	29°44.5'	80°26.5'	1022	15	605	54.7	15	39	22.2	19.7	36.2	36.4
30	25	29°43.5'	80°38.0'	1210	15	50	11.1	11	30	21.6	21.4	36.3	36.4
31	25	29°42.3'	80°49.3'	1334	15	26	4.2	5	29	20.7	20.6	35.8	36.0
32	25	29°41.0'	81°01.0'	1500	15	57	16.2	9	17	19.8	19.5	35.3	35.5
33	25	29°40.5'	81°06.5'	1553	15	24	3.8	7	17	19.6	19.6	35.1	35.3
34	25	29°40.0'	81°12.0'	1705	15	87	13.3	13	13	19.4	19.2	34.5	34.8
35	25	28°53.0'	80°47.0'	2226	15	952	89.0	16	10	20.8	20.7	36.0	36.0
36	26	28°54.0'	80°41.5'	0010	15	19	3.2	6	22	20.9	20.2	36.0	36.1
37	26	28°55.0'	80°36.0'	0122	15	19	6.3	11	22	21.0	21.0	36.3	36.3
38	26	28°57.0'	80°24.6'	0252	15	55	10.9	16	21	21.0	21.0	36.5	36.3
39	26	28°59.0'	80°13.4'	0455	15	94	3.4	20	58	22.4	16.6	36.2	36.1
40	26	30°30.0'	81°22.0'	1604	15	103	8.8	11	14	16.8	16.8	32.6	32.7
41	26	30°29.2'	81°16.0'	1707	15	379	24.5	10	17	17.3	17.2	33.0	33.1
42	26	30°28.5'	81°10.5'	1822	15	35	96.1	5	20	18.3	18.3	34.5	34.4
43	26	30°27.2'	80°59.0'	2009	15	59	15.7	17	28	19.0	19.0	35.1	35.1
44	26	30°26.0'	80°47.5'	2120	15	55	10.4	11	28	19.8	19.7	35.7	35.8
45	26	30°24.5'	80°36.0'	2238	15	164	203.4	27	31	20.7	20.7	36.6	36.4
46	27	30°23.2'	80°24.5'	0012	15	387	29.7	30	39	21.1	21.1	36.5	36.4
47	27	30°22.0'	80°13.0'	0157	15	62	3.2	6	138	23.0	12.6	36.6	*
48	27	32°14.0'	80°28.5'	1135	15	19	21.2	6	11	14.7	14.7	31.8	32.2
49	27	32°11.8'	80°25.0'	1226	15	8	3.7	2	13	14.8	14.2	32.2	32.6

Appendix Table 1.--Continued.

Cruise stn.	Date	Lat. (N)	Long. (W)	Location time	Start time	Duration (min)	Total No.	catch Wt. (kg)	No. spp. caught	Depth (m)	Temp. Surface (°C)	Bottom Surface	Salinity (%) Bottom**
50	27	32°08.6'	80°20.5'	1429	15	133	4.6	7	7	17	14.5	33.2	32.9
51	27	32°02.4'	80°11.2'	1545	15	16	4.5	7	22	15.2	14.9	33.7	34.1
52	27	31°56.0'	80°01.7'	1728	15	53	36.5	8	27	16.7	16.8	34.8	35.0
53	27	31°49.8'	79°52.5'	1855	15	26	23.8	10	40	19.0	19.6	36.0	36.4
54	27	31°43.2'	79°43.0'	2018	15	30	2.9	11	53	20.5	19.2	36.5	36.3
55	27	31°37.5'	79°34.5'	2140	15	158	15.2	8	143	21.6	15.3	36.5	*
56	28	33°38.0'	78°55.5'	0828	15	8	7.9	5	8	14.0	13.8	33.5	33.6
57	28	33°33.5'	78°52.0'	0918	15	11	26.1	2	11	13.5	13.5	33.7	33.8
58	28	33°30.0'	78°47.3'	1004	15	13	23.3	7	14	13.6	13.5	33.7	33.9
59	28	33°22.0'	78°41.0'	1125	15	698	112.5	10	16	14.5	14.5	34.4	34.7
60	28	33°14.2'	78°33.7'	1244	15	571	105.8	9	24	16.1	16.5	35.6	35.9
61	28	33°06.5'	78°26.2'	1408	15	101	13.3	5	26	16.7	16.7	35.8	35.9
62	28	32°58.6'	78°19.0'	1528	15	1,786	212.5	8	33	17.5	17.5	36.0	36.1
63	28	32°50.0'	78°10.7'	1658	15	42	3.0	13	140	18.2	15.8	36.4	*
64	29	34°38.0'	77°04.5'	0400	15	63	24.9	14	15	12.2	12.2	34.5	34.8
65	29	34°34.3'	77°01.0'	0506	7	35	10.7	8	18	13.4	13.6	35.8	35.9
66	29	34°30.0'	76°57.2'	0600	15	30	22.7	7	20	13.9	14.4	35.8	36.3
67	29	34°22.2'	76°50.0'	0718	7	104	15.5	9	23	14.1	14.1	36.1	36.0
68	29	34°14.2'	76°42.8'	0845	15	45	50.3	13	30	15.7	15.7	36.1	36.2
69	29	34°06.5'	76°35.5'	1001	15	4	2.7	2	37	16.7	16.7	36.5	36.3
70	29	33°56.5'	76°25.5'	1132	15	28	3.4	2	67	20.7	17.2	36.5	36.2
71	29	35°03.0'	75°58.5'	1740	15	191	78.8	10	15	10.2	10.3	31.1	31.4
72	29	34°59.0'	75°54.5'	1904	15	86	113.1	8	23	11.1	11.9	32.1	33.3
73	29	34°55.0'	75°50.5'	1954	15	24	31.0	5	26	10.9	11.6	32.4	32.9
74	29	34°47.2'	75°43.0'	2115	15	16	70.3	5	40	11.9	17.8	34.1	36.0
75	29	34°41.3'	75°37.0'	2230	15	16	8.6	5	155	20.6	15.8	36.5	*
Del-72-15 May										13	17.2	14.9	32.8
1	16	35°47.5'	75°29.5'	1250	16	1,832	1,196.3	23					33.6
2	16	35°51.0'	75°25.5'	1522	15	17	34.8	6	22	18.0	10.1	29.1	32.2
3	16	35°52.5'	75°10.6'	1619	15	1	0.3	1	25	16.9	11.0	30.7	32.0
4	16	35°55.6'	75°07.8'	1803	15	1	0.2	1	32	17.5	9.8	31.4	29.3
5	16	35°58.0'	74°58.0'	1921	15	16	2.9	6	56	18.1	10.5	31.0	34.0
6	16	36°00.0'	74°48.5'	2045	15	28	1.8	2	134	15.5	11.6	31.9	33.9 (50)

Appendix Table 1.--Continued.

Cruise stn.	Date	Location	Start time	Duration (min)	Total catch No.	catch wt. (kg)	No.spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity (‰) Surface	Salinity (‰) Bottom*
7	17	34°38.0'	77°05.5'	1150	391	47.5	14	16	20.0	18.9	34.9	35.1
8	17	34°34.0'	77°01.0'	1308	222	18.9	15	17	21.0	18.7	34.9	35.3
9	17	34°30.0'	76°57.2'	1417	87	12.8	16	20	20.2	18.7	35.3	35.6
10	17	34°22.3'	76°50.0'	1547	Trawl hung and catch lost			26	22.7	20.2	35.7	35.7
11	17	34°14.4'	76°42.6'	1749	36	6.2	10	33	22.3	22.1	35.2	36.0
12	17	34°06.4'	76°35.5'	1925	6	1.9	4	38	24.0	23.3	36.4	36.2
13	17	33°55.0'	76°24.5'	2120	7	1.8	4	152	24.3	16.2	36.3	36.1(50)
14	18	32°50.0'	78°10.7'	0740	28	1.5	6	147	25.8	18.0	35.4	36.4(50)
15	18	32°58.5'	78°19.0'	0928	299	32.9	8	35	23.2	22.8	36.1	36.1
16	18	33°06.5'	78°26.5'	1045	16	123.5	5	30	21.5	21.1	35.6	35.8
17	18	33°14.5'	78°34.0'	1211	5,268	717.3	24	24	21.0	20.5	35.0	35.4
18	18	33°22.1'	78°41.0'	1424	281	187.5	7	18	22.2	21.1	33.9	34.6
19	18	33°30.0'	78°48.5'	1551	49	450.7	9	16	22.7	20.0	33.3	34.0
20	18	33°34.0'	78°52.0'	1700	48	256.5	8	11	22.7	20.7	33.0	33.8
21	18	33°38.0'	78°55.5'	1815	119	16.6	16	8	23.1	21.2	33.2	33.6
22	19	31°38.0'	79°33.5'	0531	47	4.6	6	142	24.3	20.6	36.3	36.3(50)
23	19	31°43.0'	79°43.0'	0716	3	1.1	2	52	23.8	22.2	36.3	36.2
24	19	31°49.5'	79°52.5'	0854	9	2.4	7	40	22.0	21.7	35.8	36.0
25	19	31°56.0'	80°02.0'	1007	11	4.8	6	29	21.7	21.6	35.1	35.6
26	19	32°02.5'	80°11.0'	1117	11	7.6	2	22	21.6	21.6	35.1	35.1
27	19	32°08.5'	80°20.5'	1242	17	4.6	8	21	21.6	21.5	34.2	34.2
28	19	32°11.8'	80°25.1'	1315	141	4.1	5	18	21.9	21.8	33.4	33.5
29	19	32°14.5'	80°29.5'	1500	53	3.2	12	10	23.0	23.5	32.4	32.5
30	20	30°22.5'	80°11.2'	0028	15	133	8.3	12	145	25.1	15.0	36.1
31	20	30°23.3'	80°24.4'	0310	15	208	26.2	27	41	25.4	22.7	36.0
32	20	30°24.5'	80°36.0'	0505	15	35	10.4	8	36	23.1	22.4	35.9
33	20	30°26.0'	80°47.5'	0637	15	36	13.0	9	31	22.8	22.3	35.5
34	20	30°27.0'	80°59.0'	0800	15	10	3.3	4	25	22.7	22.6	34.6
35	20	30°28.5'	81°10.0'	0923	15	19	7.0	3	19	23.0	23.0	34.2
36	20	30°29.0'	81°16.0'	1006	15	358	183.9	10	19	23.3	22.3	33.4
37	20	30°30.0'	81°22.0'	1111	15	219	19.2	13	15	24.0	23.9	32.5
38	20	29°00.0'	80°05.0'	2134	15	13	1.4	6	140	27.6	16.0	36.3
39	20	28°59.0'	80°13.0'	2252	15	43	3.2	12	56	25.2	23.1	36.1

Appendix Table 1.--Continued.

Cruise stn.	Date	Lat. (N)	Location Long. (W)	Start time	Duration (min)	Total No.	catch Wt. (kg)	No.spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity Surface (%)	Salinity Bottom** (%)
40	21	28°57.0'	80°24.5'	0035	15	76	142.2	19	24	23.9	23.8	35.4	35.4
41	21	28°55.0'	80°35.8'	0200	15	51	5.9	16	22	24.0	24.0	35.2	35.5
42	21	28°54.1'	80°41.5'	0318	15	57	7.1	11	20	24.2	24.2	35.2	35.3
43	21	28°53.0'	80°47.0'	0444	15	3	0.8	3	11	24.5	24.5	35.2	35.1
44	21	29°40.0'	81°12.0'	0958	15	268	20.3	13	14	24.2	24.2	33.9	33.7
45	21	29°40.0'	81°06.3'	1103	15	134	10.0	12	20	24.1	23.8	33.9	33.9
46	21	29°41.0'	81°01.0'	1205	15	41	70.4	8	19	24.0	23.5	33.9	34.0
47	21	29°42.2'	80°49.4'	1350	15	33	119.6	10	28	23.6	23.2	34.5	34.7
48	21	29°43.4'	80°37.9'	1523	15	60	10.8	6	32	24.0	22.5	35.6	35.5
49	21	29°44.5'	80°26.5'	1714	15	46	14.7	12	42	25.5	22.5	35.9	35.7
50	21	29°45.6'	80°15.0'	1908	15	19	1.2	8	148	24.8	24.8	36.1	35.9(50)
51	22	30°59.3'	79°56.7'	0153	15	31	0.7	3	140	25.0	9.5	36.0	35.8(50)
52	22	31°05.3'	80°14.2'	0412	15	25	8.1	10	42	25.9	22.8	31.9	35.9
53	22	31°09.0'	80°25.0'	0545	15	18	8.2	8	32	23.1	21.8	36.1	35.3
54	22	31°13.0'	80°36.0'	0727	15	11	4.7	5	27	22.1	22.0	34.7	34.7
55	22	31°16.5'	80°47.2'	0855	15	42	6.6	11	22	22.3	22.1	33.6	33.8
56	22	31°20.5'	80°58.2'	1020	15	14	1.0	4	16	22.9	22.9	31.8	32.2
57	22	31°22.3'	81°03.5'	1124	15	69	3.3	7	15	23.6	23.5	30.7	30.8
58	22	31°24.2'	81°08.8'	1304	15	118	7.1	14	8	23.7	23.5	29.1	29.6
59	22	32°49.0'	79°39.3'	2336	15	193	6.4	16	9	22.6	22.3	33.1	33.2
60	23	32°46.0'	79°34.8'	0030	15	158	11.1	18	14	22.1	22.0	33.8	33.8
61	23	32°43.0'	79°30.0'	0131	15	41	6.5	14	17	22.1	21.4	33.9	34.0
62	23	32°36.7'	79°20.8'	0304	15	25	7.6	12	22	21.2	21.1	34.7	34.6
63	23	32°30.5'	79°11.5'	0433	15	68	91.0	14	36	22.9	21.7	35.1	35.4
64	23	32°24.4'	79°02.5'	0608	15	40	6.5	15	49	25.5	22.7	35.9	35.8
65	23	32°18.5'	78°55.0'	0741	15	137	4.7	11	140	25.5	16.4	35.9	35.9(50)
66	23	33°59.0'	77°53.0'	2027	15	384	23.0	15	12	20.7	20.7	34.3	34.3
67	23	33°54.8'	77°50.0'	2134	15	417	62.4	21	16	20.5	20.5	34.4	34.4
68	23	33°51.0'	77°46.0'	2248	15	199	19.0	22	18	20.4	20.4	34.6	34.5

Appendix Table 1.--Continued.

Cruise stn.	Date	Lat. (N)	Long. (W)	Location	Start time	Duration (min)	Total No.	catch wt. (kg)	No. spp. caught	Depth (m)	Temp. (°C) Surface	Temp. (°C) Bottom	Salinity (‰) Surface	Salinity (‰) Bottom**
69	24	33°43.0'	77°39.0'	0031	15	735	80.1	23	25	20.5	20.5	20.5	35.1	35.1
70	24	33°35.0'	77°31.5'	0213	15	1,701	156.8	15	25	24.4	21.2	35.8	35.2	35.2
71	24	33°27.5'	77°24.0'	0359	15	1,219	110.8	24	32	24.5	23.5	23.5	35.4	35.8
72	24	33°16.0'	77°13.0'	0622	15	24	1.7	10	120	24.5	16.9	35.7	35.8 (50)	35.8
73	24	34°40.0'	75°36.5'	1820	15	10	0.4	5	142	25.4	17.9	35.7	35.7	35.7
74	24	34°46.0'	75°43.0'	1956	15	96	2.3	6	44	24.3	20.9	35.7	35.6	35.6
75	24	34°55.0'	75°50.7'	2109	15	33	0.3	2	26	24.5	22.2	35.6	35.5	35.5
76	24	34°59.0'	75°54.6'	2220	15	225	78.6	10	26	18.5	21.5	30.6	35.0	35.0
77	24	35°01.5'	76°00.0'	2316	15	193	32.3	16	17	18.0	20.5	27.9	30.5	30.5

\*Data not recorded.

+Data recorded only for selected species.

\*\*Figure in parenthesis indicates greatest depth in meters where salinity was measured if not at the bottom.

Appendix Table 2.-List of fishes collected, arranged according to Bailey et al. (1970), including a summary of location and catch. An asterisk (\*) indicates data not recorded and a plus sign (+) indicates a weight less than 0.1 kg.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (kg)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>ODONTASPIDIDAE</u>									
<u>Odontaspis taurus</u> , sand tiger									
Del-71-3	1	1	7.7	118	Del-72-15	1	1	9.1	80
Del-72-15	1	3	215.5	143-298		12	1	0.1	26
	20	2	170.1	205-230		32	1	0.2	25
						66	1	5.9	104
<u>CARCHARHINIDAE</u>									
<u>Carcharhinus limbatus</u> , blacktip shark									
Del-72-15	12	1	1.4	71	D-68-7	1	1	*	*
	69	1	3.9	93		2	11	*	*
						3	2	*	*
						20	1	*	*
<u>Carcharhinus milberti</u> , sandbar shark									
D-68-7	13	1	*	150	D-69-9	2	20	*	*
D-69-9	8	1	*	97		11	4	*	*
	48	1	*	*		13	1	*	*
	60	3	*	*		15	*	*	*
D-69-15	36	1	*	102	D-69-23	1	16	2	*
D-69-23	18	1	*	100	D-70-16	7	17	2	*
	7	1	29.5	200	D-70-16		18	5	*
D-70-16	2	1	2.5	72	D-71-3		19	2	*
D-71-3	4	1	6.6	96		20	20	5	*
	62	1	1.7	69		21	1	*	*
Del-72-8	45	1	56.7	178		23	3	*	*
	56	1	1.6	66		24	24	*	*
						27	6	*	*
						29	1	*	*
						30	4	*	*
						31	4	*	*
<u>Carcharhinus obscurus</u> , dusky shark						32	1	*	*
						33	5	*	*
D-70-19	33	1	6.8	*		34	4	*	*

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Mustelus canis</u> --Cont.									
35	12	*	*	37	11	*	*	*	*
36	4	*	*	38	12	*	*	*	*
37	15	*	*	39	1	*	*	*	*
38	10	*	*	40	5	*	*	*	*
39	18	*	*	46	6	*	*	*	*
40	12	*	*	48	1	*	*	*	*
41	10	*	*	49	1	*	*	*	*
42	6	*	*	56	2	*	*	*	*
43	1	*	*	57	1	*	*	*	*
45	1	*	*	58	2	*	*	*	*
46	6	*	*	59	2	*	*	*	*
50	2	*	*	61	52	*	*	*	*
51	5	*	*	62	11	*	*	*	*
54	5	*	*	68	12	*	*	*	*
57	5	*	*	69	4	*	*	*	*
62	1	*	*	70	5	*	*	*	*
63	1	*	*	D-69-21	2	34	*	*	*
64	6	*	*		3	10	*	*	*
65	2	*	*	70	4	1	*	*	*
11	1	*	*	32	4	*	*	*	*
D-69-15	12	3	*	35	18	1	*	*	*
	13	4	*		27	1	*	*	*
	14	2	*		28	1	*	*	*
	22	9	*		29	5	*	*	*
	23	22	*		31	4	*	*	*
	26	6	*		32	8	*	*	*
	27	2	*		33	7	*	*	*
	28	3	*		34	7	*	*	*
	29	18	*		35	5	*	*	*
	30	3	*		41	3	*	*	*
	35	3	*		42	1	*	*	*
	36	2	*		45	5	*	*	*
<u>Mustelus canis</u> --Cont.									
									70-120

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Mustelus canis--Cont.</u>									
D-69-25	3	2	*				35	9	8.2
	4	1	*				36	3	2.7
	5	4	*				39	3	*
	6	2	*		D-70-19	1	3	2.0	*
	7	1	*				2	2.3	57-67
	11	6	*				6	2	55-58
	12	4	*				16	2	83-110
	13	1	*				9	2	
	5	1	*				10	11	
D-69-29	1	1	*				13	14	
D-70-7	2	1	0.9				14	14	
D-70-16	3	1	1.1				15	1	
	4	3.2	*				16	2	
	6	8	7.3				17	3	
	7	6	6.8				18	9	
	16	9	3.6				19	1	
	10	3	0.2				20	2	
	11	1	1.1				23	1	
	12	9	3.6				24	1	
	13	7	2.7				24	1	
	14	30	41.3				30	4	
	16	1	0.5				32	6	
	17	8	3.6				39	3	
	18	2	0.9		D-71-3	7	1		
	21	7	10.0				8	1	
	22	1	1.4				10	30	
	24	1	0.5				14	2	
	27	4	8.2				16	1	
	28	7	8.2				26	1	
	29	14	13.2				35	3	
	30	7	8.6				37	1	
	34	5	4.5				38	1	

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Mustelus canis--Cont.		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<b>Mustelus canis--Cont.</b>									
D-71-11	4	16	13.2	52-77		65	1	0.2	52
	5	3	2.3	58-71		67	1	0.7	57
	6	18	23.1	66-91		68	10	20.4	50-112
	7	29	29.5	56-82	Del-72-8	4	4	15.4	47-120
	8	47	29.9	51-73		5	156	271.3	52-110
	9	5	28.3	110-120		9	2	12.0	102-122
	11	1	0.6	58		12	5	4.5	56-70
	46	15	3.9	34-71		13	2	9.2	59-102
	47	23	14.5	30-140		14	5	9.5	63-125
	48	15	21.3	57-98		15	1	0.9	66
D-71-14	3	1	1.4	91		48	1	8.6	123
	6	7	2.9	42-66		57	7	22.5	60-128
	17	4	3.4	60-70		58	2	15.0	107-123
	18	8	4.5	37-110		64	4	3.6	59-72
	19	5	6.4	45-115		66	3	8.2	88-100
	25	1	0.9	66		67	1	5.9	113
	26	5	3.2	54-60		71	9	19.5	58-99
	34	11	21.8	82-100		72	54	107.0	55-105
Del-71-2	1	7	7.9	51-77		73	13	26.8	72-108
	2	24	41.3	63-90	Del-72-15	1	2	0.5	36-37
	3	17	23.1	67-120		2	1	6.8	110
	4	3	7.3	83-91		5	2	1.1	51-54
	7	1	4.1	103					
Del-71-3	1	1	0.6	52					
	2	1	5.4	128					
	3	9	34.9	81-108	D-71-11	27	1	3.5	89
	4	6	33.1	73-128		31	2	1.2	45-54
	5	8	22.3	55-112					
	6	3	9.1	55-103					
	51	3	15.0	50-118	SPHYRNIDAE				
	62	10	56.7	50-120	<u>Sphyra</u> <u>lewini</u> , scalloped hammerhead				
	63	4	22.7	102-121	Del-72-8	34	1	6.4	118

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch		Range (cm)
		No.	Wt. (kg)					No.	Wt. (kg)	
<u><i>Sphyraena tiburo</i>, bonnethead</u>										
D-71-3	34	1	1.8	84			4	8	27.2	79-88
							8	6	18.1	72-91
							9	1	2.6	77
							14	1	0.9	64
							15	5	8.4	70-79
							16	6	13.6	61-83
							16	3	7.7	74-82
							19	10	19.5	65-81
							22	4	7.3	71-77
							23			
							24	1	1.6	70
							36	1	1.8	87
							38	1	2.7	100
							39	21	76.2	80-100
							40	1	3.6	85
							21	1	0.1	30
							D-71-14	27	44.5	67-89
							Del-71-2	4	42.6	56-85
								5	22	62-99
								6	21	34.0
								7	12	19.1
								8	69	77.1
								85	23	43.1
								66	33	72.6
								67	13	24.9
									15	43.5
									21	65.8
									4	12.2
									5	85-94
									56	1
									64	11.5
									71	73-82
										49.0
										72-85
										19

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)					
		No.	Wt. (kg)				No.	Wt. (kg)						
<u>SQUATINIDAE</u>														
<u><i>Squatina dumerili</i>, Atlantic angel shark</u>														
D-69-9	8	6	*				Del-71-3	1	22.7					
	39	1	*					59	1					
	50	3	*					60	2					
	51	3	*					61	1					
	55	1	*					64	2					
	56	3	*	150-300			Del-72-8	5	0.9					
	57	1	*				Del-72-15	1	40-41					
	62	1	*						41					
D-69-15	10	1	9.1	108					39.5					
	12	1	*						112-121					
	13	2	*											
	14	3	*				D-69-23	1						
	24	8	*	89-112			Del-71-3	14	*					
	25	3	*					32	5					
	41	1	*					44	0.5					
	60	1	*					51	1					
D-69-21	3	1	*					56	0.9					
D-69-23	21	1	*				Del-72-8	17	0.9					
	23	1	*					52	1					
	24	1	*					60	0.8					
	29	1	*				Del-72-15	21	0.7					
	32	1	*					60	0.7					
D-70-16	5	5	36.3					71	0.7					
	6	2	9.1						61-66					
	9	2	9.1											
D-70-19	10	3	54.4				Narcine <u>brasiliensis</u> , lesser electric ray							
	12	2	22.7				D-68-13	53	*					
D-71-11	10	1	8.2				D-71-3	32	4.8					
	47	1	11.3				D-71-11	24	23-36					
	48	3	61.2					1	35					
			80-120											

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Raja eglanteria</u> , clearnose skate									
D-68-13	2	36	28.7	*	24	25	*	*	*
	3	19	16.8	*	25	6	*	*	*
	4	24	22.2	*	26	54	*	*	*
	11	5	1.8	*	27	35	*	*	*
	15	13	7.7	*	28	24	*	*	*
	26	*	7.3	*	29	8	*	*	*
	38	*	*	*	30	20	*	*	*
	41	*	*	*	31	14	*	*	*
	42	*	*	*	32	16	*	*	*
	43	*	*	*	33	30	*	*	*
D-69-9	1	2	*	*	34	30	*	*	*
	3	4	*	*	35	30	*	*	*
	4	4	*	*	36	75	*	*	*
	5	19	*	*	37	10	*	*	*
	6	5	*	*	38	20	*	*	*
	7	*	*	*	39	15	*	*	*
	8	12	*	*	40	6	*	*	*
	9	6	*	*	41	25	*	*	*
	10	4	*	*	42	12	*	*	*
	11	12	*	*	43	9	*	*	*
	12	7	*	*	46	15	*	*	*
	13	8	*	*	47	40	*	*	*
	15	20	*	*	48	20	*	*	*
	16	11	*	*	50	50	*	*	*
	17	31	*	*	51	40	*	*	*
	18	50	*	*	52	15	*	*	*
	19	30	*	*	53	18	*	*	*
	20	14	*	*	54	30	*	*	*
	21	21	*	*	55	12	*	*	*
	22	98	*	*	57	20	*	*	*
	23	1	*	*	62	11	*	*	*
						63	47		

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)			No.	Wt. (kg)	
<u>Raja eglanteria</u> --Cont.								
D-69-15	64	6	*		46	2	*	*
	66	1	*		47	5	*	*
	68	4	*		48	5	*	*
	69	1	*		49	14	*	*
	7	13	*	15-37	50	27	*	*
	8	20	*	18-47	51	9	*	*
	10	2	*		52	6	*	*
	11	24	*		53	5	*	*
	12	10	*		54	35	*	*
	13	55	*		55	*	*	*
	14	14	*		56	36	*	*
	17	7	*		57	48	*	*
	18	25	*		58	10	*	*
	19	*	*		59	20	*	*
	20	28	*		60	10	*	*
	21	8	*		61	1	*	*
	22	7	*		62	11	*	*
	23	37	*		63	28	*	*
	24	35	*		64	18	*	*
	25	18	*		66	5	*	*
	26	15	*		67	12	*	*
	27	14	*		68	1	*	*
	28	6	*		69	3	*	*
	32	25	*		70	78	*	*
	33	20	*	D-69-21	1	25	*	*
	34	18	*		2	32	*	*
	36	7	*		3	42	*	*
	41	5	*		4	3	*	*
	42	4	*	D-69-23	1	6	*	*
	43	5	*		3	1	*	*
	44	4	*		6	1	*	*
	45	2	*		11			

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Raja eglanteria--Cont.</u>									
	12	1	*		D-69-29		2	1	45
	16	1	*				6	2	35-50
	17	2	*				7	11	22-52
	18	2	*				8	7	37-55
	19	2	*				9	8	*
	20	2	*				10	12	22-25
	21	15	*				11	10	21-50
	22	*	*				12	6	24-56
	23	27	*				13	3	20-56
	24	4	*				15	4	*
	25	1	*				16	4	*
	26	2	*				18	10	*
	29	22	*				19	16	*
	30	2	*				20	7	*
	31	15	*				21	48	*
	32	8	*				22	17	*
	33	2	*				23	12	*
	34	8	*				24	22	*
	42	8	*				25	7	*
	43	14	*				26	1	*
	44	2	*				27	4	*
D-69-25	1	*	*		D-70-7		1	2	1.4
	2	3	*				2	18	15.9
	3	2	*				3	4	1.4
	4	1	*				4	3	*
	5	*	*		D-70-16		1	11	2.3
	6	19	*				2	40	1.6
	7	*	*				3	40	11.8
	8	4	*				4	4	*
	10	1	*				5	64	16.3
	11	4	*				5	53	24.5
	12	3	*				6	5	45.4
			*				6	12	9.1
			*				8	8	0.1
			*				1	1	39

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch	Wt. (kg)	Range (cm)
		No.	Wt. (kg)							
<i>Raja eglanteria</i> --Cont.										
9	23	22.7	*	D-70-19	5	15	8.8	39-61		
10	16	14.5	*		6	1	0.6	48		
11	36	26.3	*		9	14	15.2	*		
12	13	5.7	*		10	22	21.8	42-64		
13	8	3.0	*		11	2	0.7	34-44		
14	22	25.4	*		12	7	9.1	60-63		
15	2	1.8	*		14	5	5.9	59-67		
16	3	2.5	*		15	1	0.6	49		
17	3	2.7	*		16	13	13.2	53-62		
18	6	4.3	*		17	1	1.1	59		
19	27	18.6	*		18	23	24.0	47-64		
20	9	2.5	31-40		19	1	1.0	59		
21	15	7.7	*		23	1	1.4	62		
22	22	7.1	26-44		40	2	2.3	55-57		
23	32	11.8	*	D-71-3	2	1	0.9	58		
24	47	13.8	*		3	4	4.1	39-62		
25	25	6.6	*		4	2	3.9	65-67		
26	40	16.3	*		5	4	4.8	55-61		
27	21	8.2	*		7	2	2.0	59		
28	6	3.0	*		9	2	2.3	61-63		
29	38	18.8	31-46		10	5	4.5	43-57		
30	24	9.8	37-42		11	4	3.6	29-62		
31	38	12.5	29-48		12	1	1.4	62		
32	15	4.1	32-46		13	3	3.6	53-63		
33	3	1.4	33-38		14	5	3.4	45-55		
34	45	19.5	*		15	5	5.2	51-61		
35	51	22.7	*		16	4	5.2	48-57		
36	4	1.2	31-43		17	6	5.7	49-60		
37	17	5.7	33-43		18	12	8.4	37-56		
38	27	7.5	27-45		19	7	6.4	50-63		
39	2	1.1	35-36		20	4	2.7	46-55		

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Raja eglanteria--Cont.</u>									
21	1	1.0	51			45	4	2.3	40-52
22	1	0.9	56			46	33	21.8	38-61
25	3	1.1	37-44			47	73	60.3	45-61
26	2	0.7	38-41		D-71-14	48	1	0.7	34
28	1	0.2	34			7	2	1.8	53-56
29	8	2.8	33-56			8	6	7.7	56-64
30	4	3.4	48-54			16	2	1.8	43-60
31	3	1.8	36-57			17	4	3.4	51-59
32	3	0.8	35-40			18	144	111.1	39-63
33	6	4.3	48-53			19	18	18.6	47-61
34	1	0.7	50			26	1	1.0	53
35	29	26.1	29-59		D-71-3	1	1	1.5	64
36	12	10.0	30-58			2	7	6.1	47-58
37	2	2.3	56-57			3	4	4.5	54-61
38	1	1.1	51			4	3	3.2	53-56
39	11	9.1	24-65			5	9	11.3	53-67
7	3	3.4	58-65			6	8	8.6	37-67
8	4	4.3	53-63			7	7	5.9	21-58
9	12	11.1	42-63			12	1	0.9	54
10	77	73.5	48-65			13	1	0.6	50
11	4	4.5	56-63			14	1	0.2	36
13	114	81.9	26-62			15	1	0.6	47
14	11	8.2	28-63			22	3	2.0	41-56
15	4	2.3	38-58			24	1	0.7	49
16	6	5.0	36-63			26	5	2.3	26-50
17	6	4.1	36-60			35	4	1.9	29-52
18	1	0.7	45			40	1	0.9	53
19	1	0.2	40			42	1	0.7	48
32	1	+	15			44	1	0.9	54
41	1	0.1	24			47	2	0.2	27-34
42	5	4.1	48-57			50	1	0.2	29
43	4	2.4	46-53			52	7	2.8	23-49

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Raja eglanteria--Cont.</u>									
53	1	0.7	47	42		2	1.4	53-56	
54	3	2.7	51-53	45		1	0.6	54	
56	1	0.1	28	48		1	0.7	50	
58	1	0.1	24	49		4	3.6	50-57	
59	5	2.4	35-56	50		3	1.8	41-51	
60	20	20.9	44-68	51		7	2.9	37-48	
61	16	10.9	33-61	52		4	2.5	48-52	
62	11	5.9	35-57	53		1	0.7	50	
63	2	0.2	35-36	56		4	4.1	50-58	
65	1	1.0	58	57		4	3.6	45-57	
67	8	6.8	43-61	58		3	3.2	52-58	
68	5	5.9	46-66	59		3	2.0	43-55	
	1	4	51-62	60		4	1.4	29-49	
	2	6	58-66	61		1	0.1	29	
	3	10	7.7	64		3	2.8	43-62	
	4	11	5.4	46-58		4	4.5	50-63	
	4	11	5.4	42-52		4	4.5	41-64	
	11	3	3.4	54-56		11	10.9	44-50	
	12	2	1.8	49-58		2	1.1	53	
	13	5	5.0	52-57		1	0.8	34-51	
	14	4	3.6	49-54		2	1.4	41-60	
	15	6	3.4	33-49		73	3	31-67	
	16	9	2.4	33-40		1	11.9	40-65	
	20	1	0.9	50		2	10	5.0	
	21	13	6.6	27-58		7	8	41-55	
	22	9	5.4	37-58		8	1	40	
	23	12	5.2	31-47		9	1	55	
	25	2	1.6	49-59		17	3	39-52	
	30	1	1.0	59		19	5	51-58	
	35	4	1.0	34-44		20	4	49-61	
	39	1	0.5	33		21	2	42-44	
	40	2	0.9	40-43		23	2	41-49	
	41	5	2.9	40-49		24	1	55	

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<i>Raja eglanteria</i> --Cont.									
25	2	1.4	52-56			13	2	*	*
31	1	0.3	40			14	1	*	*
32	1	0.7	50			19	2	*	*
33	1	0.5	46			20	4	*	*
35	1	1.1	56			21	14	*	*
39	6	1.1	31-40			22	5	*	*
40	4	1.4	35-52			23	2	*	*
47	1	0.7	48	D-70-16		5	3	1.8	22-36
53	3	1.6	41-48	D-70-19		1	1	0.2	41
54	2	1.2	47-50			2	2	0.6	38-40
55	2	1.9	50-52			3	31	10.9	24-45
59	2	2.3	57-58			4	20	6.8	21-48
60	1	0.6	48			8	1	0.5	46
61	2	1.4	46-55			10	4	2.7	44-47
62	6	2.7	36-47			12	8	5.0	45-47
66	1	0.8	51			13	5	2.5	35-44
67	3	1.4	34-52			20	11	6.6	42-47
68	9	4.3	34-57			21	3	1.5	31-47
69	2	0.9	39-43			22	4	1.0	30-39
70	3	2.3	39-56			23	13	5.0	19-48
74	1	1.0	58			24	99	35.8	26-45
77	33	18.1	35-65			25	26	9.1	24-51
<i>Raja erinacea</i> , little skate									
D-68-7	3	3	*			26	19	6.6	27-47
	6	1	*			27	15	5.9	25-44
	7	2	*			28	25	7.9	27-44
	8	1	*						
	9	11	*						
	10	2	*						
	12	1	*						

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Raja erinacea--Cont.</u>									
D-71-3	36	17	6.4	38-44		23	12	5.0	28-48
	37	20	9.5	38-49		24	11	4.5	27-47
	38	1	1.6	43		28	19	5.9	24-46
	1	5	2.9	38-48		29	10	2.9	31-42
	40	9	5.0	,	41-49	30	9	3.3	30-46
	41	1	0.5	38		31	6	1.1	23-35
D-71-11	1	3	1.5	40-48		32	18	11.3	25-50
	2	10	4.5	33-47		33	11	2.9	17-44
	3	16	5.7	28-45		34	34	10.0	28-49
	4	6	1.7	30-37	Del-71-2	1	1	0.6	41
	5	3	1.0	30-45		2	3	2.0	43-50
	6	22	8.4	29-46		4	21	7.9	29-48
D-71-14	12	3	1.0	35-47		5	2	0.5	31-41
	44	1	0.7	43		6	4	0.9	31-35
	49	17	4.8	21-52		7	18	7.3	23-49
	1	9	4.6	28-48		8	2	0.8	23-49
	2	74	30.4	31-48	Del-71-3	65	3	1.7	45-50
	3	37	12.8	26-46		66	1	0.9	47
	4	12	5.7	21-47		67	10	5.4	34-48
	5	41	10.7	15-49		68	19	10.0	29-48
	6	12	2.9	19-47					
	8	1	0.5	42					
	9	4	2.0	42-44					
	10	5	0.9	23-34	Del-71-3	11	22	2.0	23-29
	11	13	2.5	19-46		64	2	0.5	37
	12	8	1.6	10-46	Del-72-8	5	4	0.9	36-37
	13	12	2.9	22-46		6	21	1.7	20-36
	14	39	5.3	16-45		19	15	1.2	22-28
	15	6	1.1	24-35		27	2	0.2	30-31
	20	25	5.4	18-49		63	4	0.5	25-27
	21	33	6.5	17-47		75	2	0.1	28-29
	22	16	3.2	11-44					
<u>Raja garmani, rosette skate</u>									

## Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Raja garmani</i>--Cont.</u>									
Del-72-15	5	4	1.0	25-38	Del-72-8	17	2	204.1	247-320
	13	1	0.1	27		23	2	294.8	315-340
	14	4	0.5	26-29		42	1	90.7	272
	50	1	0.1	31		45	1	113.4	320
	51	2	0.3	31		60	1	15.9	153
	52	1	0.1	31		68	1	17.2	138
	65	11	0.8	22-28		74	9	58.5	89-194
	72	2	0.2	27-28		75	1	8.2	155
					Del-72-15	2	1	16.8	171
						16	1	113.4	330
						17	1	124.7	300
D-71-3	2	1	4.1	50		18	2	170.1	254-300
						19	4	430.9	230-330
						20	1	79.4	293
					DASYATIDAE	36	2	172.4	320-360
					<u><i>Dasyatis americana</i></u> , southern stingray	40	1	124.7	320
D-69-23	12	1	*	136.1		46	1	63.5	294
	13	1	*	*		47	1	113.4	325
	20	1	*	*		63	1	79.4	325
D-71-3	18	1	8.2	53		76	2	68.0	126-150
	19	8	108.9	53-82					
	23	4	6.8	*	Dasyatis centroura				
	24	2	2.3	62-74					
	28	4	3.6	46-50	D-68-7	2	1	*	*
	29	1	0.3	44	D-69-9		1	*	*
	35	5	2.5	50-60		35	3	68.0	
D-71-11	46	37	54.4	45-100		37	3		*
	47	39	56.7	35-70		38	2		*
Del-71-3	22	1	2.3	96		39	2		*
	23	1	1.6	94		41	1		*
	48	1	2.7	123		42	4		*
						43	2		*
						43	1		*

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch		Range (kg)
		No.	Wt. (kg)					No.	Wt. (kg)	
<u>Dasyatis centroura</u> --Cont.										
		*	*		D-69-9	25	1	*	*	*
46	2	*	*			33	1	*	*	*
48	1	*	*		D-69-15	24	2	*	*	*
50	4	*	*			25	4	*	*	*
52	2	*	*			31	6		204.1	*
53	1	*	*			37	1	*	*	*
54	1	*	*			44	1	*	*	*
56	1	18.1	*			46	1	*	*	*
57	3	*	*			47	1	*	*	*
D-70-16	9	2	1.8	*		50	1		22.7	*
D-70-19	9	1	2.3	*		61	1	*	*	*
10	36	226.8	*			63	1	*	*	*
29	1	24.9	200		D-69-23	11	4	*	*	*
34	1	36.3	*			27	1	*	*	*
29	1	158.8	300			28	1	*	*	*
30	1	136.1	*			38	1		20.4	*
D-71-11	8	1	15.9	120		42	2		40.8	*
	10	2	6.8	107-130						43
	26	1	136.1	450	D-69-29	15	1	*	*	*
	42	1	1.9	56		16	1	*	*	*
D-71-14	6	1	5.4	102		22	1	*	*	*
	19	16	51.7	80-180		23	1	*	*	*
	24	1	11.3	185	D-71-11	13	1	1.6		81
Del-71-3	4	2	6.4	112-114						
	6	1	7.7	100	Dasyatis sayi, blunt nose stingray					
	7	1	34.5	193						
	9	1	79.4	240	D-68-13	2	5		3.3	*
	29	1	204.1	352	D-69-29	2	2	*	*	*
	45	1	79.4	320		3	1	*		50-51
	46	1	102.1	330		4	2	*		*
	58	2	147.4	254-293		6	1	*		45-51
	64	10	92.5	84-170		7	3	*		*
Del-72-15	1	154	680.4	100-194		8	5			

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Dasyatis sayi</u> --Cont.									
9	5	*	*		D-69-9	7	*	*	*
16	1	*	*			45	1	*	*
23	5	*	*			58	1	1,360.8	60-164
24	11	*	*		D-69-23	25	*	*	*
25	1	*	*		D-69-29	22	1	*	*
26	1	*	*		Del-71-3	42	1	0.6	27
27	4	*	*			62	1	1.4	35
D-71-3	16	1.8	74		Del-72-8	74	1	10.9	80
D-71-11	36	1	0.5						
D-71-14	6	1	0.3						
Del-71-3	4	1	23.6	150					
	7	23	205.9	42-193	D-68-13	3	4	*	*
	9	1	0.6	67	D-69-9	25	1	*	*
	22	3	1.4	47-50	D-69-29	8	1	*	20
	23	2	0.8	49-51		11	1	*	35
	24	2	0.9	43-55		22	1	*	*
	33	1	0.8	69	Del-72-15	1	2	3.2	44-52
	48	2	1.1	48-49					
	11	1	15.9	140					
	20	2	1.9	50-70					
	34	3	1.8	51-54					
	35	3	2.8	53-81					
	40	1	0.6	52	D-69-29	5	1	*	96
	48	2	11.8	91-115	D-70-19	9	2	19.5	135-157
	68	1	14.5	136	D-71-3	11	1	0.5	56
	20	40.8	*		D-71-11	27	4	22.7	70-71
	21	4	2.5	50-54		10	2	7.3	50-110
	44	2	2.7	69-76		46	17	27.2	35-80
	45	1	1.2	84	D-71-14	47	3	9.1	40-100
	60	2	1.5	49-74		6	1	2.7	100
	66	2	1.2	50-54		18	2	5.4	54-99
		1	0.7			19	18	64.0	49-146
		77							

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)					
		No.	Wt. (kg)				No.	Wt. (kg)						
<b><u>Myliobatis freminvillei</u>--Cont.</b>														
Del-71-3														
2	1	0.7	63	63-67	Del-71-3	55	1	0.3	49					
8	2	1.4	63-67	120-128										
59	3	18.1	18.1	153										
64	1	18.1	50-55											
16	2	1.1	72-119		Del-72-8	46	1	0.2	46					
20	6	22.7	6.8	47-79										
21	8	0.5	59											
34	1	2.0	68-80											
40	2	6.4	99											
Del-72-15	7				Del-72-15	30	4	+	24-34					
<b><u>Myliobatis goodei</u>, southern eagle ray</b>														
D-70-16	6	2	9.1	*										
<b><u>Rhinoptera bonasus</u>, cownose ray</b>														
D-69-9	59	2	*	*	D-69-9	2	2	*	11-15					
D-69-15	12	1	*	*		3	1	*	*					
	13	8	*	*	D-69-15	4	12	*	*					
	43	1	*	*	D-69-23	68	1	*	*					
D-69-23	18	4	*	*		9	1	*	15					
	25	1	*	*	D-69-23	10	13	*	*					
Del-72-15	1	3.6	132			11	1	*	8					
					D-70-7	16	1	*	*					
D-69-9	30	1	*		D-70-16	34	1	+	16					
D-70-19	65	1	*		D-71-3	2	2	+	10-12					
Del-71-3	10	1	121			6	1	+	9					
	65	1	100			41	4	0.1	14-20					
					D-71-14	1	1	+	12					
					Del-72-8	5	5	+	8					

## Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Wt. (kg)	Catch	Range (cm)
		No.	Wt. (kg)							
<u><i>Alosa mediocris</i>, hickory shad</u>										
D-71-3	7	3	+	12-13	D-70-7	1	1	0.2	24	
					D-71-3	1	1	0.3	35	
						2	1	0.2	32	
						6	4	0.1	9-13	
						8	2	0.1	22	
D-70-7	1	1.8	*	1.8						
D-70-16	4	1	+	1.2						
	35	1	0.1	2.3	Del-71-3	16	245	5.7	9-14	
D-70-19	40	1	0.1	1.7	Del-72-8	1	1	+	15	
D-71-3	1	2	+	1.0-1.2		1	1	+	17	
	40	4	0.6	2.0-3.1		3	1	0.1	17	
	41	4	0.9	2.0-3.1					26	
Del-72-8	1	3	0.1	1.2-2.2						
	2	1	0.1	2.6	D-68-7	4	2	*		
					D-71-3	41	7	1.2	20-34	
<u><i>Alosa sapidissima</i>, American shad</u>										
D-69-29	14	1	*	15						
	21	1	*	19	D-68-13	23	*	*		
D-70-16	35	1	1.1	51		24	*	*		
Del-71-3	42	1	0.1	18		40	2	*		
Del-72-8	2	1	1.5	51	D-69-9	42	*	*		
						30	1	*		
						31	1	*		
						45	100	*		
<u><i>Brevoortia tyrannus</i>, Atlantic menhaden</u>										
D-68-13	38	*	*	*	D-69-23	38	1	*	12	
	39	*	*	*	D-69-25	2	1	*	12-13	
	46	2	*	*		11	2	*		
	47	*	*	*		12	4	*		
	49	*	*	*	D-69-29	25	1	*	12	
D-69-9	63	1	*	2	D-70-16	17	4	0.1	11	
	65	1	*	2		24	1	+	11	
	67	1	*	2					38	

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch	Wt. (kg)	Range (cm)
		No.	Wt. (kg)							
<u><i>Etrumeus teres</i>--Cont.</u>										
D-70-19	23	1	0.2	30	D-71-11	28	131	4.8	14-19	
	31	8	0.1	11-14			33	0.2	10-16	
	33	40	0.9	13-16	De1-71-3	18	16	0.7	17-20	
	34	2	0.1	13		25	1	+	18	
D-71-3	26	2	+	11-13		29	8	0.1	12-15	
	30	1	+	10	De1-72-8	20	2	+	8-9	
D-71-14	1	41	0.5	11-12		29	340	7.7	10-17	
	28	9	0.1	11-12		41	9	0.1	13-16	
	29	3	+	11-12		48	13	0.1	8-10	
De1-71-2	2	3	0.1	12-13		50	100	1.4	8-17	
De1-71-3	3	112	3.3	12-19	De1-72-15	14	5	0.2	15-17	
	240	2.7		11-13		28	1	+	13	
	9	17	0.5	14-16		36	181	4.5	10-18	
De1-72-8	50					71	1	+	15	
<u><i>Opisthonema oglinum</i>, Atlantic thread herring</u>										
D-69-23	3	1	*	13	Anchoa hepsetus, striped anchovy					
D-69-29	7	50	*	9-11		9	232	*	*	*
D-71-3	29	2	+	10-12		15	2	*	*	*
	30	14	0.1	10-23		16	19	*	*	11
D-71-11	25	1	+	17		17	1	*	*	*
	27	8	0.2	7-17		26	1	*	*	*
	36	1	0.1	20		37	*	*	*	*
	40	2	0.1	18		38	*	*	*	*
De1-71-3	34	2	+	14-16		39	*	*	*	*
	35	6	0.2	16-18		46	*	*	*	*
	40	2	0.1	19-20		47	*	*	*	*
De1-72-8	34	1	+	19		51	*	*	*	*
	35	1	+	18		4	*	*	*	*
De1-72-15	29	1	+	11	D-69-9	8	11	*	*	*
	58	1	+	15		13	*	*	*	*
	59	1	+							

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Anchoa hepsetus--Cont.</u>									
	12	2	*			24	1	*	12
	28	1	*			25	1	*	10
	37	6	*	D-70-16		36	1	+	7
	38	8	*	D-70-19	1	4	0.1		8-9
	40	1	*		6	1	+		7
	57	12	*		11	2	0.1		11-12
D-69-15	43	2	*		18	1	+		8
	46	7	*	D-71-3	1	12	+		5-8
	59	1	*		2	120	0.1		4-9
	60	1	*		6	9	+		6-7
	61	1	*		8	9	0.5		5-7
D-69-23	4	1	*		10	7	+		6-11
	9	11	*	5-9	13	1	+		12
	10	200	*		14	5	0.1		10-12
	24	12	*		16	3	0.1		10-11
	28	3	*	12-13	17	12	*		*
	32	1	*	12	19	50	+		5-6
D-69-25	9	1	*		23	30	0.2		5-10
	12	20	*		26	65	0.9		10-12
	13	50	*		27	3	+		5-11
D-69-29	4	10	*	6-12	28	25	0.1		5-10
	7	1	*	10	29	40	0.1		6-11
	9	1	*	11	30	250	1.5		5-11
	10	1	*	8	37	1	+		10
	11	1	*	9	38	5	+		5-7
	12	5	*		39	50	0.1	*	
	16	1	*	D-71-11	21	325	0.9		5-11
	17	1	*		22	35	0.1		6-10
	18	2	*		27	10	+		4-6
	20	12	*	8-10	46	6	+		11-13
	22	6	*	10-12	47	3	+		8-13
	23	14	*	10-11	1	7	+		6-7

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch	Range (cm)
		No.	Wt. (kg)						
<u>Anchoa hepsetus</u> --Cont.									
Del-71-3	1	1	+	7	D-68-13	1	22	2.2	19-33
	2	80	0.2	6-7		2	43	2.4	*
	23	3	+	10-13		3	1	*	*
	35	2	+	9		4	*	*	*
	42	36	0.3	7-13		6	2	*	*
	53	4	+	5-7		7	21	*	*
	54	2	+	11-13		8	60	*	17-25
	65	5	+	8-9		9	*	*	*
	1	400	0.5	4-7		10	4	*	*
	13	16	+	5-11		12	3	*	23-28
	14	1	+	11		17	3	*	*
	20	8	+	6-7		25	*	*	*
	34	8	0.1	7-11		33	*	*	*
	40	2	+	11		40	*	*	*
	41	4	0.1	12-13		41	*	*	*
	50	2	+	11		42	*	*	*
	71	8	0.1	11-12		44	1	*	*
	21	8	0.1	11-12		45	1	*	*
	21	10	0.1	9-11		48	3	*	*
	58	24	0.1	4-11		55	*	*	*
	59	6	+	5-10	D-69-9	14	1	*	*
	60	10	0.1	6-11	D-69-23	1	*	*	*
	66	1	+	10		7-17	2	*	*
	68	13	+				3	*	*
							4	*	*
							5	*	*
							6	*	*
							7	*	*
							9	*	*
D-69-9	63		2	*		3-6		28-39	*

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Synodus foetens</i>--Cont.</u>									
D-69-29	10	35	*	*		31	4	0.3	21-29
	12	3	*	*		32	10	1.0	22-31
	16	10	*	*		35	1	0.1	30
	20	1	*	*		36	2	0.1	23-34
	22	1	*	*		37	8	1.0	25-34
	25	1	*	*		39	2	0.2	28
	1	1	*	*	De1-71-3	40	6	1.0	19-34
	2	1	*	*		8	2	0.1	29
	5	1	*	*		9	2	0.2	27-30
	7	1	*	*		12	1	0.3	34
	9	2	*	*		14	1	0.1	19
	10	1	*	*		16	1	0.2	35
	11	2	*	*		18	4	0.9	28-39
	13	2	*	*		24	13	3.3	31-43
	18	2	*	*		25	21	4.3	24-38
	19	2	*	*		26	1	0.1	26
	21	1	*	*		28	1	0.1	36
	22	1	*	*		29	1	0.1	38
	23	1	+	12		30	4	0.9	28-37
	24	4	0.1	7-16		31	3	0.5	29-35
	25	1	+	21		32	10	2.4	27-38
	26	1	0.1	22		33	2	0.6	31-43
	31	6	0.6	19-30		37	1	0.1	27
	33	6	0.7	21-31		38	9	2.2	27-40
	34	11	0.9	14-27		39	14	2.5	25-38
	22	5	0.7	21-32		40	10	1.2	21-32
	23	1	0.1	19		41	1	0.2	33
	24	2	0.5	30-31		42	1	0.1	32
	25	3	0.3	28-31		43	1	0.1	29
	27	9	1.1	17-29		44	4	0.9	30-37
	28	29	2.6	21-31		48	6	1.2	30-33
	30	5	0.6	23-29		49	3	0.6	31-34

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Synodus foetens</i>--Cont.</u>									
50	3	0.5	25-28			61	3	0.3	19-24
51	5	1.8	30-44			62	14	2.4	25-39
52	2	0.3	31-32			66	2	0.5	34-35
53	2	0.5	32-34			68	1	0.1	23
54	1	0.2	32	Del-72-15	7	2	0.1	30	
55	1	0.2	28		8	1	0.1	33	
58	3	0.5	16-19		9	3	0.7	28-36	
16	5	1.4	31-35		11	3	0.5	28-35	
17	5	1.0	20-38		15	1	0.5	42	
21	2	0.5	24-36		17	18	4.1	33-45	
23	1	0.3	36		18	2	1.1	29-38	
24	1	0.2	31		19	1	0.1	27	
25	1	0.1	29		20	4	0.3	23-30	
26	2	0.5	33-35		21	11	1.0	20-28	
29	2	0.5	28-36		25	3	0.7	30-34	
30	8	1.4	28-32		27	1	0.1	25	
31	7	0.9	23-33		28	3	0.3	27-36	
32	24	4.1	18-44		29	3	0.1	16-20	
33	1	0.1	30		31	2	1.1	43-45	
38	6	1.0	27-34		33	3	0.7	29-37	
39	1	0.1	28		34	2	0.6	34-40	
40	1	0.1	20		37	5	0.2	19-25	
41	7	1.0	13-27		39	1	0.1	28	
42	7	1.1	23-35		41	3	0.7	30-33	
43	2	0.6	34-36		42	1	0.2	35	
44	2	0.1	25-29		45	2	0.2	23-24	
45	4	1.1	28-39		46	6	1.4	29-37	
46	2	0.9	29-42		48	2	0.3	28-33	
51	2	0.1	28-29		49	1	0.2	34	
52	5	0.9	11-47		53	1	0.3	34	
59	1	0.2	38		55	8	1.1	26-33	
60	3	0.6	24-32		56	1	0.1	30	

## Appendix Table 2.--Continued.

Cruise	Stn.	No.	Catch Wt. (kg)	Range (cm)	Cruise	Stn.	No.	Catch Wt. (kg)	Range (cm)
<u><i>Synodus foetens</i>--Cont.</u>									
<u><i>Trachinocephalus myops</i>--Cont.</u>									
57	2	0.1	19-23	Del-71-3	30	2	0.1	19-27	
58	11	1.1	18-31		36	3	0.4	22-28	
60	4	0.3	19-25		38	1	0.1	27	
61	1	0.1	24		39	1	+	1.2	
62	1	0.2	33		50	2	0.3	22-28	
63	1	0.1	28			1	+	1.3	
65	3	0.6	31-35	Del-72-8	18	2	0.2	16-24	
66	1	0.1	34		26	1	0.1	19	
67	1	0.2	32		31	1	0.2	26	
68	2	0.2	25-26		32	1	0.1	1.2	
69	3	0.6	19-35		38	1	0.1	23	
70	4	1.1	29-38		39	1	+	1.7	
76	1	0.1	23		45	2	0.1	21-22	
<u><i>Synodus intermedius</i>, sand diver</u>									
Del-72-8	29	1	0.1	24	33	1	0.1	22	
Del-72-15	64	1	+	17	38	1	+	35	
	65	1	+	11	47	1	0.1	16	
<u><i>Chlorophthalmidae</i></u>									
<u><i>Sudis</i> sp.</u>									
Del-72-8	46	2	0.5	23-26	6	1	+	20	
	63	1	+	12					<u>MYCTOPHIDAE</u>
Del-72-15	64	1	0.1	24					<u>Myctophid, unidentifiable to genus</u>
	71	1	0.1	24					
	72	1	+	12					
<u><i>Trachinocephalus myops</i>, snakefish</u>									
D-71-3	18	2	+						7-8

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Arius felis</i>, sea catfish</u>									
D-71-3	28	2	0.1	11-21	Del-72-15	67	1	0.1	18
	29	1	+	21		68	9	0.5	10-20
	32	1	0.1	21		69	2	0.1	12-15
D-71-11	25	1	0.2	31		71	1	+	17
Del-71-3	35	2	0.1	18-19	GOBIESOCIDAE				
	40	79	12.2	20-35	<u><i>Gobiesox</i> sp.</u>				
	41	2	0.8	22-36					
Del-72-15	58	1	0.2	24	D-71-14	9	1	+	*
<u><i>Batrachoididae</i></u>									
	<u><i>Opsanus tau</i>, oyster toadfish</u>				D-69-9	1	1	*	51
D-69-23	1	1	*	*		4	1	*	*
D-69-29	11	1	*	25		8	3	*	*
D-71-3	14	1	0.5	26		9	1	*	*
	<u><i>Porichthys porosissimus</i>, Atlantic midshipman</u>					11	1	*	*
D-69-23	11	2	*	15-16		13	1	*	*
	12	2	*	*		14	1	*	*
	16	2	*	*		20	3	*	*
D-69-29	10	2	*	18-19		23	2	*	*
	27	1	*	15		28	2	*	*
D-71-3	31	1	+	12		29	3	*	*
D-71-11	17	2	0.1	14		41	2	*	*
Del-71-3	51	1	+	12		44	1	*	*
Del-72-8	19	9	0.5	12-21		62	1	*	*
	27	1	+	9		63	3	*	*
	55	2	0.1	12-18		64	2		

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<i>Lophius americanus</i> --Cont.									
D-69-15	16	1	*	32	Del-71-3	11	8	0.1	6-8
	30	1	*	6-7		36	10	0.1	8-10
	32	3	*		Del-72-8	18	21	0.5	8-12
	44	1	*			19	2	+	7-11
	66	1	*	6		26	7	0.3	10-12
D-70-7	1	1	2.7			27	1	+	6
	2	1	3.6			39	5	0.1	9-10
	3	1	2.3			46	5	0.1	9-11
	4	1	*			47	1	+	10
D-70-16	23	1	6.7	78		54	1	+	10
	25	1	+	6		63	1	+	8
	28	1	10.4	84		75	11	0.1	6-8
	35	1	7.5	88		22	6	0.1	7-8
D-71-3	37	1	0.6	26	Del-72-15	30	10	0.1	4-8
D-71-14	5	3	22.7	100-110		31	5	0.1	10-12
	5	2	2.4	21-54		51	26	0.2	3-9
	12	1	0.1	19		73	2	+	7-9
	28	2	9.5	21-77					
	32	7	0.9	17-24					
	33	2	1.1	27-32					
D-71-2	8	1	0.1	19					
D-72-8	2	1	6.1	70	Del-71-3	30	1	+	15
	6	2	6.8	53-64		35	1	+	6
	69	1	2.3	54		36	1	+	6
Del-72-15	2	1	5.9	76		37	1	+	13
ANTENNARIIDAE									
<i>Antennarius ocellatus</i> , ocellated frogfish					Del-72-8	19	1	0.1	10-11
Del-71-3	27	1	0.1			26	1	0.1	16
						30	1	0.1	18
						37	1	+	7

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Ogcocephalus sp.		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Ogcocephalus nasutus</u> --Cont.									
Del-72-15	38	3	0.2	15-17	D-69-29		4	1	*
	39	1	+	8			7	1	*
	45	1	0.7	35			8	1	*
	63	1	+	13			10	1	*
	13	2	0.1	13	D-71-11		19	1	*
	24	1	0.1	18			39	1	+
	31	3	0.1	10-19					8
	32	1	0.1	17	GADIDAE				
	38	1	+	9	<u>Gadus morhua</u> , Atlantic cod				
	39	5	0.3	14-17					
	40	4	0.3	12-16	D-70-7		4	1	5.0
	41	1	+	10					70
	47	1	0.1	16					
	63	1	+	10					
	64	2	0.1	6-8	D-68-7		3	3	*
	72	5	0.5	10-17			4	169	*
<u>Ogcocephalus parvus</u> , roughback batfish									
Del-71-3	29	1	+			12			
<u>Ogcocephalus vespertilio</u> , longnose batfish									
Del-72-8	11	1	0.1	14	D-69-9		3	3	*
	29	1	+	8			22	1	*
	39	1	+	13	D-69-15		7	2	*
	75	1	+	11			11	11	15-20
	13	3	0.2	13-19			14	1	*
Del-72-15	49	2	0.1	9-10			15	3	10-29
	72	9	0.6	12-16			16	1	20
							18	8	12-24
							19	9	20-30

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (kg)
		No.	Wt. (kg)				No.	Wt. (kg)	
<i>Merluccius bilinearis</i> --Cont.									
20	3	*	*	18-26		7	450	20.4	15-19
21	2	*	*	21-30		11	98	2.9	16-20
23	2	*	*	30-34		12	49	3.1	16-21
29	9	*	*	13.6		17	12	0.3	9-18
30	*	*	*	17-19		18	23	0.6	11-21
31	3	*	*	14-30		19	11	0.5	14-19
32	7	*	*	16-29		22	3	+	12-16
33	9	*	*	17-29		26	11	0.3	13-17
34	10	*	*	17-29		27	34	1.1	11-21
35	3	*	*	17-24		29	38	0.8	10-17
49	2	*	*	28		30	40	1.0	11-19
50	1	*	*	27		31	73	1.6	10-19
51	1	*	*	21-31		32	54	1.1	11-17
52	8	*	*	19-32		33	19	0.3	12-18
53	7	*	*	32		34	42	1.0	10-19
54	1	*	*	29		35	384	10.9	12-19
63	1	*	*	25-29	D-70-19	36	46	1.4	13-19
64	2	*	*	25-35		2	51	1.6	14-19
66	2	*	*	31		3	1	0.1	18
67	1	*	*	21-30		4	13	0.5	17-19
70	5	*	*	17-37		5	4	0.3	20-23
D-69-23	1	*	*	11-17		7	2	0.1	17-19
D-69-25	2	*	*	9-34		8	35	2.0	18-23
D-70-7	8	*	*	7-20		10	20	0.7	14-20
D-70-16	1	*	*	11-20		12	12	0.5	16-21
D-70-7	2	2	0.6	11-20		13	12	0.6	19-22
D-70-7	3	4	0.2	11-17		13	7	0.2	15-22
D-70-16	4	3	0.6	9-34		20	71	3.2	14-20
D-70-16	1	84	2.8	7-20		21	20	0.7	17-22
D-70-7	2	480	10.9	11-20		22	12	0.5	18-21
D-70-7	3	64	2.0	11-23		23	7	0.2	17-22
D-70-16	4	42	1.5	11-18		24	10	0.5	20
D-70-16	6	106	3.2	13-17		26	1	0.1	13-21
D-70-16	8					28	8	0.5	

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Merluccius bilinearis</i>--Cont.</u>									
29	1	0.1	17		21	2	0.3	32-33	
31	86	2.5	11-23		22	2	0.8	20-38	
32	62	2.3	12-21		23	3	0.2	18-23	
33	6	0.2	15-23		29	1	0.1	21	
34	7	0.3	17-20		30	4	0.2	19-20	
36	1	0.1	14		31	10	0.7	15-26	
37	2	0.1	16-17		33	1	0.1	25	
D-71-3	1	2	+ 9-10		Del-72-8	2	0.1	17-26	
3	12	10.2	42-56		6	1	0.1		27
4	3	0.2	10-32						
5	1	+ 14	14						
39	14	4.1	8-44						
40	3	0.7	9-41		D-68-7	4	77	*	14-34
41	6	0.1	11-24		D-69-9	64	5	*	*
11	13	0.7	12-20			68	3	*	*
D-71-11	12	7	0.2	12-22		69	6	*	35-51
12	2	0.1	15-16		D-69-15	8	9	*	10-24
14	1	0.1	19			11	1	*	20
16	1	0.1	19			11	3	*	19-20
42	1	0.1	19			15	1	*	15
45	9	0.5	14-21			16	3	*	35-39
48	41	1.8	11-23			19	4	*	15-35
D-71-14	3	1	0.1			20	13	*	14-34
4	27	3.6	16-52			21	2	*	32
5	3	0.3	26-29						
10	5	0.5	20-24			32	5	*	18-22
11	20	1.2	17-33			33	4	*	14-28
12	1	0.1	31			35	5	*	*
13	3	0.6	22-33			36	1	*	34
14	1	0.1	20			65	1	*	34
15	6	0.8	19-26			66	1	*	21
16	1	0.1	23			67	4	*	16-34
17	88	6.0	17-23			70	4	*	11-37

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Urophycis chuss</i>--Cont.</u>									
D-69-25	9	1	*	22		17	1	0.2	27
D-70-7	1	5	1.8	16-43		18	1	0.1	25
	2	12	2.7	12-43		19	5	0.2	15-21
	3	1	0.3	36		20	15	0.7	14-22
D-70-16	1	78	3.1	13-38		24	34	2.7	14-42
	2	27	1.6	13-36		25	1	0.1	22
	3	1	0.1	15		27	8	0.7	14-32
	4	1	0.1	27		28	2	0.1	14-24
	11	3	0.1	17-22		29	8	0.6	17-22
	16	2	0.1	19-21		30	3	0.1	17-19
	17	33	1.0	12-20		31	45	3.2	17-29
	18	26	1.2	11-22		32	38	2.3	14-35
	19	1	+	18		34	1	0.2	26
	22	23	0.8	11-19		35	1	0.1	21
	23	16	0.2	11-17		36	3	0.1	15
	24	19	0.6	10-28		37	44	9.1	18-43
	25	31	0.6	13-18		38	54	6.1	13-46
	26	56	1.8	13-22		39	10	0.7	15-24
	29	18	0.3	11-28		40	16	1.0	17-23
	31	2	0.5	20-34	D-71-3	1	8	0.1	8-11
	32	4	0.3	16-31		3	4	1.0	18-45
	33	4	0.3	14-33		4	3	+	11-14
	34	13	0.9	11-30		39	2	0.1	12-14
	35	49	3.6	10-38		40	2	1.0	10-45
	36	1	0.3	41		41	1	+	10
	37	52	3.4	12-52	D-71-11	2	2	0.9	38-41
	38	10	0.6	14-20		49	6	0.1	12-17
D-70-19	1	2	0.1	12-20	D-71-14	1	2	0.1	16
	10	1	0.1	21		4	65	14.5	17-40
	11	1	0.1	13		5	13	1.8	18-36
	12	4	0.3	21-24		11	24	1.2	16-23
	16	1	0.1	27		12	14	0.7	14-27

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Urophycis chuss</i>--Cont.</u>									
13	8	0.5	13-29	D-68-7	14	2	*	18-20	
14	19	2.3	11-42	D-69-9	2	2	*	5-8	
20	20	0.9	15-32		48	3	*	*	*
21	53	3.3	17-34		51	2	*	*	*
22	14	0.6	13-31		52	3	*	*	*
27	28	0.6	11-18		53	6	*	*	
31	24	2.0	16-30		54	6	*	12-18	
32	14	2.5	17-37		55	3	*	20	
33	19	2.9	16-40		56	10	*	11-13	
De1-71-2	6	1	+	13	62	2	*	3	
De1-72-8	1	0.1	22	D-69-15	63	14	*	*	
					7	32	1.8	14-27	
						8	11	*	11-25
<u><i>Urophycis earlli</i>, Carolina hake</u>									
D-69-29	10	2	*	27	11	9	*	9-28	
	16	7	*	20-39	13	8	*	12-22	
	17	1	*	23	19	1	*	14-23	
	18	1	*	30	20	7	*	12-19	
De1-71-3	43	1	0.5	32	21	15	*	10-30	
De1-72-8	9	1	0.3	33	22	2	*	22-24	
	12	2	0.5	22-32	23	1	*	20	
	45	1	0.3	37	24	39	*	10-20	
De1-72-15	67	1	0.3	33	25	112	*	8-22	
	69	1	0.1	19	26	2	*	*	
	71	1	0.6	34	29	2	*	16-20	
					30	3	*	11-19	
					32	1	*	18	
<u><i>Urophycis floridanus</i>, southern hake</u>									
D-71-3	11	1	+	11	35	2	*	*	
	12	8	0.2	8-27	37	17	*	16-18	
	25	1	+	10	38	1	*	20	
					40	14	*	16-27	

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Urophycis regius</i>--Cont.</u>									
	41	26	*	12-19		22	1	*	20
	42	5	*	15-19		23	1	*	17
	43	1	*	18		24	5	*	21-26
	49	6	*	14-26		25	2	*	21-28
	54	8	*	14-22		26	7	*	20-27
	55	3	*	16-18	D-70-16	27	8	*	17-24
	59	1	*	22		1	17	0.2	10-13
	60	3	*	8-15		5	290	13.2	12-21
	70	10	*	9-17		6	126	5.4	11-23
D-69-21	1	7	*	19-27		8	1	0.1	20
	2	12	*	18-26		9	20	1.6	12-24
	3	8	*	17-23		10	66	2.3	13-21
	17	2	*	18		11	22	2.0	16-25
D-69-23	18	1	*	23		12	16	1.9	17-30
	21	11	*	21-28		13	1	0.1	18
	22	28	*	16-23		14	1	0.1	18-22
	23	2	*	23		15	10	1.2	18-25
	24	3	*	19-21		16	11	0.8	14-21
	29	7	*	22-26		17	1	+	22
	31	2	*	12-28		18	7	0.1	10-21
	32	24	*	22-26		21	3	0.1	10-13
	42	12	*	19-24		29	4	+	9-13
	43	6	*	21-22		34	24	0.1	8-13
D-69-25	2	2	*	24-27		36	25	0.6	10-14
	5	5	*	21-27		39	32	0.7	9-14
	7	4	*	11-27	D-70-19	1	14	0.6	13-20
	8	4	*	24-26		2	5	0.2	15-18
	9	12	*	25-31		5	59	2.9	15-22
	13	3	*	16-17		6	40	2.3	13-25
D-69-29	17	1	*	24		8	8	0.7	17-24
	18	1	*	27		10	65	3.9	16-24
	21	1	*	31		11	5	0.2	16-24

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Urophycis regius</i>--Cont.</u>									
12	64	4.3		17-28			17	0.5	3-18
13	94	5.7		16-26			32	0.2	4-14
14	2	0.2		17-26			28		
16	7	0.6		19-28			320	3.6	8-13
17	1	0.2		19			106	1.1	7-15
18	2	0.2		24-26			48	0.5	8-12
19	15	0.5		11-18			27	1.0	7-18
20	3	0.1		14-15			28	0.6	9-18
23	7	0.8		12-30			29	0.1	8-15
24	13	1.2		13-27			30	4	7-14
25	5	0.7		21-28			32	3	0.1
26	1	+		14			35	5	0.2
28	2	0.5		23-30			36	10	0.1
29	10	0.7		13-28			37	11	0.2
30	4	0.1		13-16			38	19	0.5
31	2	0.2		23-24			39	14	1.0
32	2	0.1		13-14			41	1	4-12
36	7	0.2		11-17			41	+	7-20
39	9	0.5		14-18			41	1	0.2
40	17	0.9		14-20			41	3	0.5
1	8	0.1		8-11			42	5	0.3
2	10	0.1		6-13			42	5	9-25
3	5	0.1		13-17			42	2	0.1
4	18	0.3		8-17			43	1	17-25
5	3	0.1		8-10			43	1	0.1
9	4	0.1		11-19			44	1	1.9
12	1	+		13			45	2	0.8
13	14	0.1		7-16			45	1	14-22
14	9	0.1		6-18			46	1	20
15	76	0.9		6-20			47	8	16-17
16	117	1.4		7-26			48	0.5	14-24
							49	123	1.4
							53	53	15-25
									17-30

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Urophycis regius</i>--Cont.</u>									
D-71-14	1	5	0.3	18-21	De1-72-8	1	0.1	0.1	17
	10	17	1.6	13-27		2	+	+	11-15
	12	2	0.2	20-21		6	8	0.2	9-20
	13	5	0.3	19-22		15	1	+	11
	14	29	2.7	18-25		17	1	0.2	28
	15	250	14.7	15-28		18	2	0.3	22-26
	16	5	0.6	14-25		19	25	2.2	17-30
	17	57	4.8	18-30		27	24	1.4	11-26
	18	4	0.5	20-24		39	1	0.1	23
	19	4	0.3	21-26		47	12	0.5	15-20
	21	5	0.5	16-27		55	14	0.8	13-22
	22	20	2.0	11-27		63	10	0.6	15-23
	24	2	0.3	23-28		64	1	+	12
	25	6	0.9	17-32		72	4	0.3	18-28
	27	5	0.1	13-15		73	1	0.1	28
	3	5	0.5	20-24	De1-72-15	1	4	0.1	11-21
	4	1	0.1	21		2	3	0.3	20-36
	5	1	0.1	22		5	3	0.5	18-30
	7	2	0.2	20-24		6	6	0.5	17-24
	8	2	0.2	20-26		22	1	0.1	19
	1	2	0.2	24-28		30	25	0.9	11-21
	6	1	0.1	20		50	1	0.1	11
	7	12	1.4	18-28		59	1	+	11
	11	1	0.1	18		60	2	0.1	12
	60	1	0.2	30		65	1	+	12
	61	10	1.4	20-27		68	1	+	14
	62	3	0.2	20-26					
	64	1	0.2	28					
	65	6	1.4	23-33					
	67	1	0.1	21	D-68-7	22	1	*	17
	68	2	0.1	7-22					

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)					
		No.	Wt. (kg)				No.	Wt. (kg)						
<b>OPHIDIIDAE</b>														
<i>Lepophidium cervinum</i> , fawn cusk-eel														
D-69-29	6	3	*	23-26	D-69-15	41	1	*	*					
	7	5	*	11-24	D-29-23	32	5	*	17-27					
	9	1	*	23	D-69-29	7	2	*	21-25					
	17	1	*	8	D-70-16	5	2	0.1	26-27					
	18	2	*	24-25	D-71-11	17	1	0.1	21					
	19	1	*	26	De1-71-3	26	1	+	17					
D-71-3	18	1	0.1	21		27	1	0.1	26					
	31	3	0.1	7-23		36	4	0.6	24-29					
	35	2	+	6-16		56	2	0.7	31-32					
De1-72-8	43	2	0.1	9-28		57	4	0.8	24-31					
65	46	1	0.2	33	ZOARCIDAE		Macrozoarces americanus, ocean pout							
	74	2	0.3	28-29	D-69-9	68	1	*	39					
	39	2	0.3	26-29	D-70-7	2	2	1.8	46-53					
	40	6	0.7	22-29	D-70-16	25	1	0.6	51					
	41	3	0.6	26-30	D-71-3	38	1	0.2	35					
	42	1	0.2	26	D-71-14	40	3	0.7	44-47					
	60	1	+	14		5	1	0.2	39					
	62	1	0.1	22		14	3	1.0	16-47					
	63	3	0.2	23-24	EXOCETIDAE		Hyporhamphus unifasciatus, halfbeak							
	64	1	0.1	22	D-69-29	9	1	*	16					
	68	1	0.1	25	De1-71-3	54	1	+	19					
	69	2	0.2	7-32	ATHERINIDAE		Menidia menidia, Atlantic silverside							
<i>Otopholidium taylori</i> , spotted cusk-eel														
De1-72-8	38	1	0.1	22										
De1-72-15	31	1	0.1	24										
	40	1	0.1	25										
					D-69-29	24	2	*	8-9					

Appendix Table 2.--Continued.



## Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch Wt. (kg)	Range (cm)
		No.	Wt. (kg)						
<u><i>Centropristes philadelphica</i>--Cont.</u>									
46	11	1.0	10-29			21	2	*	28-44
54	1	0.1	1.8			23	13	*	20-34
55	4	0.2	14-21			29	1	*	20
Del-72-15	15	1	0.1	20		56	2	*	20-25
22	2	0.1	13-16			62	3	*	23-33
31	5	0.6	13-27	D-69-21		2	1	*	14
39	1	0.1	1.9			3	1	*	22
41	1	0.1	1.9	D-69-23		1	39	*	12-31
43	1	+	1.2			3	4	*	13-21
71	1	0.1	23			4	2	*	19-21
77	1	0.1	15			5	7	*	15-25
						6	1	*	23
						8	22	*	12-31
						10	3	*	14-17
<u><i>Centropristes striata</i>, black sea bass</u>									
D-68-13	6	1	*			11	1	*	16
D-69-9	12	21	3.6			18	35	*	14-21
6	1	*	*			19	1	*	*
11	1	*	27			22	3	*	13-16
15	*	*	*			29	1	*	20
26	1	*	23			30	1	*	27
46	1	*	11			32	1	*	18
48	1	*	*			D-69-29	1	*	27-31
50	1	*	*			6	2	*	17-21
53	1	*	25			7	4	*	20-24
59	1	*	*			8	2	*	15-17
61	4	*	*			9	2	*	14-17
62	1	*	20			10	11	*	7-21
68	2	*	22-42			11	10	*	8-22
D-69-15	11	1	*			21	12	1	21
14	2	*	21-25			13	3	*	14-15
			25-31				11		8-36

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Centropristes striata</i>--Cont.</u>									
D-70-16	17	14	*	9-23		22	2	0.1	19-21
	18	28	3.6	9-32		27	15	3.3	12-45
	19	42	4.5	14-34		40	1	0.1	20
	28	1	0.3	30		49	1	0.1	23
	29	1	0.3	29		51	9	2.0	19-33
	35	1	0.2	29		55	13	2.9	17-37
D-70-19	32	1	0.2	26		56	39	6.1	15-34
D-71-3	9	1	0.1	13		57	79	10.0	12-42
	11	1	0.1	17		64	1	+	14
	12	17	2.2	11-28		65	1	+	20
	13	5	0.2	10-17		9	5	0.5	14-21
	14	7	0.6	7-20		10	9	0.9	14-21
	15	2	+	8-9		11	1	0.1	14
	16	2	+	6-8		12	3	0.5	19-23
	39	5	+	3-5		16	26	4.1	12-31
	2	1	0.2	27		26	1	0.3	28
D-71-11	3	20	5.2	19-31		39	2	0.1	14-18
	6	9	2.0	21-31		45	1	0.1	19
	12	1	0.1	23		46	1	0.1	23
	22	2	0.2	15-21		58	4	0.9	9-36
	38	11	1.5	18-24		59	1	0.7	37
	40	5	0.2	15-19		64	3	0.9	19-31
	41	1	0.1	24		67	1	0.2	26
	44	1	0.1	17		4	1	0.1	26
	45	1	+	12		7	3	0.3	18-21
	5	2	0.1	13-18		17	65	12.5	16-39
Del-71-3	6	33	5.0	16-38		21	1	0.5	22
	10	12	2.3	17-28		60	1	0.1	13
	12	5	0.5	18-21		66	1	+	12
	13	7	1.2	19-29		67	17	1.5	10-24
	14	4	0.5	16-23		68	6	0.6	11-19

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Centropristes striata</i>--Cont.</u>									
	69	8	1.1	15-24		25	7	0.9	13-25
	70	25	2.8	14-30		26	13	0.8	9-25
	71	5	1.0	18-25		27	14	0.8	12-27
<u><i>Diplectrum formosum</i>, sand perch</u>									
D-69-23	5	1	*	19		29	14	1.1	19-27
	14	3	*	19-23		30	76	12.0	22-27
D-71-3	18	2	0.1	11-14		31	44	7.7	23-29
	20	1	+	9		32	20	2.3	11-25
	21	1	0.2	28		33	5	0.6	16-26
	23	1	+	12		37	8	1.1	18-25
	24	6	0.1	10-13		38	22	2.5	23-26
	25	37	3.1	10-28		39	2	0.3	24-25
	26	6	0.6	20-28		43	23	3.5	18-27
	27	1	0.1	15		44	20	2.2	12-26
	30	3	0.1	11-18		45	21	3.5	19-27
	31	53	3.4	9-25		46	17	2.4	14-26
	32	8	0.5	11-21		49	4	0.5	23-26
	33	14	0.6	12-19		50	7	1.1	23-26
	34	25	2.3	17-26		51	1	0.1	24
D-71-11	26	6	0.7	21-23		55	6	0.9	14-28
	27	2	0.1	18-19		56	6	1.0	23-26
	28	17	1.9	19-23		57	6	0.1	16-27
	30	57	5.2	20-23		21	1	0.1	16
	31	12	0.7	16-20		22	1	+	12
	32	8	0.8	20-25		24	9	1.1	21-24
	33	3	0.6	22-26		25	2	0.2	16-26
	38	1	0.1	19		29	13	1.2	24-27
	39	3	0.8	27-29		30	27	4.1	24-27
Del-71-3	17	10	1.7	24-26		31	14	2.3	24-27
	18	2	0.3	26		32	15	1.6	21-24
						33	33	1.0	16-22
						36	1	+	16
						37	4	0.5	19-23

## Appendix Table 2.--Continued.

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>APOGONIDAE</u>									
	<u><i>Apogon maculatus</i>, flamefish</u>								
Del-71-3	29	1	0.1	15		9	5	*	20-40
	56	1	+	6		10	9	*	40-45
						11	4	*	21-25
						12	6	*	*
						13	10	*	22-28
					D-69-29	2	3	*	13
						3	1	*	*
						4	1	*	*
						5	6	1.4	21-27
						17	1	*	23
						21	2	*	22-24
						22	2	*	22-24
						22	1	+	8
					D-70-16	22	1		20-22
					D-71-3	14	5	0.3	
						30	2	+	3
					D-71-11	7	1	0.3	37
						21	1	0.1	15
						22	3	0.6	27-28
						23	5	0.7	17-28
						24	1	+	19
						29	1	0.1	25
						37	1	0.2	31
						47	2	0.7	21-30
					D-71-14	1	23	0.1	6-7
					De1-71-2	1	20	0.8	12-21
						2	1	1.4	50
					De1-71-3	1	26	1.5	14-27
						2	3	0.1	12-16
						7	2	0.3	25-28
						42	1	0.1	28
						48	1	0.1	27
						63	5	10.4	49-63

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (kg)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Pomatomus saltatrix--Cont.</u>									
Del-72-8	66	1	0.1	21	D-71-11	26	1	0.1	34
	68	1	5.3	80					
	36	1	0.1	32					
	40	19	1.5	19-22					
Del-72-15	1	2	0.1	20-26					
	29	1	0.1	21					
	37	5	0.9	16-18					
	41	2	0.5	32-34					
	66	2	0.2	20-23					
<u>RACHYCENTRIDAE</u>									
	<u>Rachycentron canadum</u> , cobia								
D-69-23	10	1	*	22	D-69-29	4	1	*	11
	12	2	7.7	61-91		35	5	*	16-19
Del-71-3	29	3	17.2	84-96	D-71-3	7	1	*	20
	45	1	0.6	40	D-71-11	33	1	*	12-16
Del-72-8	53	1	15.9	126		22	3	0.1	1.5
Del-72-15	16	2	7.5	79-83		23	4	0.1	1.9
						24	1	+	13-16
					Del-71-3	9	3	0.5	12-13
						14	1	0.1	1.1
<u>ECHENEIDAE</u>									
	<u>Echeneis naucrates</u> , sharksucker								
Del-71-3	20	1	2.3	90		39	1	0.1	21
	29	2	3.2	74-87		40	2	0.1	15-17
	43	1	0.1	36		42	2	0.1	16-19
Del-72-8	34	1	0.2	28		45	2	0.1	16-17
	45	1	2.7	83		58	1	0.1	20
Del-72-15	36	1	0.6	48		59	1	0.1	18
	40	2	2.3	56-69	Del-72-15	44	1	0.1	25
	41	2	0.9	45-57		45	1	0.2	25

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Caranx hippos</i>, crevalle jack</u>									
D-68-13	12	1	*	*			45	4.5	12-21
	15	*	*	*			57	29	14-24
	16	7	*	14-16			58	12	13-22
	17	8	*	14-16					
	22	*	*	*					
	25	*	*	*					
	44	2	*	*					
	44	1	*	11	D-68-13	51	*	*	*
D-69-23	19	1	*	11	D-69-25	11	2	*	13-15
Del-71-3	35	1	0.1	18		12	1	*	*
<u><i>Chloroscombrus chrysurus</i>, Atlantic bumper</u>									
D-71-3	29	2	+	8-9	D-70-19	2	1	0.1	9
D-71-11	25	10	0.2	13-29	D-71-3	18	1	+	16
	27	65	7.3	15-24	D-71-11	28	2	0.1	*
	28	4	0.3	18-22	D-71-14	42	1	+	8
	31	4	0.2	18-22		5	5	+	6-7
	32	1	+	17					
	37	2	+	17-18					
	40	2	0.1	19					
Del-71-3	23	4	0.1	9-12	D-68-13	4	*	*	*
	33	9	0.3	13-15		11	1	*	*
	34	10	0.1	7-12	D-71-3	25	*	*	*
	35	13	0.2	7-14		42	1	+	16
	40	2	0.1	11-16		26	67	2.4	12-17
	41	103	3.1	5-15		27	2	0.1	14-16
	42	13	0.1	7-15	D-71-11	19	31	2	16-17
	35	1	+	11		32	2	0.1	16-17
Del-72-8	29	11	0.3	12-22		120	120	1.4	8-11
Del-72-15	37	88	4.1	13-23		20	1	+	13
	44	7	0.1	13-17		25	1	+	17
						28	285	7.7	11-17
						30	1	+	15
						35	2	+	14-15

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Decapterus punctatus</i>--Cont.</u>									
D-71-14	8	1	+	11			20	34	1.5 13-19
Del-71-2	3	2	+	12			28	130	3.3 11-18
Del-71-3	18	99	5.9	16-20			29	1	+
	25	64	2.5	13-18			36	129	2.0 9-16
	26	3	+	10-14			41	1	+
	29	104	5.0	12-19			45	21	0.7 13-19
	33	59	1.8	13-18			46	13	0.5 12-18
	40	3	0.1	17			57	24	0.9 14-18
	49	1	+	18			64	4	0.1 12-15
Del-72-8	9	15	0.7	16-19			71	2	+
	14	6	0.1	14-17			74	1	+
	16	1	+	19					5
	17	1	+	18					
	18	2	+	11					
	20	1	+	15	D-68-13		8	36	*
	22	1	+	12			11	1	*
	29	73	1.4	8-17			15	1	*
	34	5	0.2	14-18			16	1	*
	39	4	0.1	24-26			50	3	*
	40	3	0.1	12-16	D-69-23		9	*	*
	41	325	11.8	11-16			10	6	10-16
	46	7	0.1	10-16			16	1	10
	48	1	+	18			18	2	17-20
	49	4	0.1	16-18			25	4	13-16
	50	8	0.2	13-17			28	1	15
	67	1	+	19	D-69-25		8	1	15
Del-72-15	7	17	1.4	16-23			12	3	*
	8	17	0.8	15-20	D-70-19		15	1	8
	9	15	0.7	13-20	D-71-11		28	7	11-12
	11	9	0.3	16-18					
	18	256	10.4	13-18					

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Selene vomer</i>, lookdown</u>									
D-68-13	3	15	*	*	D-68-13	7	8	*	*
	7	6	*	*		8	12	*	15
	8	12	*	10		9	*	*	*
	16	1	*	9		12	34	*	*
	21	1	*	*		15	6	*	11
	42	*	*	*		16	1	*	15
	47	*	*	*		17	1	*	14
D-69-23	4	5	*	13-15		42	*	*	*
De1-71-3	42	1	0.1	17		43	12	*	*
D-68-13	12	3	*	27-29		43	12	*	*
						44	2	*	*
<u><i>Seriola dumerili</i>, greater amberjack</u>									
D-68-13						45	11	*	*
						46	*	*	*
						50	39	*	*
						51	*	*	*
D-69-23	15	1	*	24	D-69-23	25	1	*	13
De1-71-3	57	1	0.2	25	D-69-25	2	2	*	12-13
	59	1	0.1	24		10	1	*	13
De1-72-8	30	1	0.1	20	D-71-11	19	135	3.1	11-14
De1-72-15	17	2	0.7	29-32	20	20	2	+	12
	46	2	0.2	19-21	De1-71-3	28	2	0.1	12-13
						9	2	0.1	15-16
<u><i>Trachinotus carolinus</i>, Florida pompano</u>									
D-68-13	10	2	*	*	D-68-7	14	2	*	*
D-69-23	4	63	*	18-22	D-68-13	10	1	*	*
	10	1	*	19		23	*	*	*
De1-71-3	42	6	1.4	20-30		25	*	*	*
De1-72-15	58	1	0.3	32		32	*	*	*
						38	*	*	*
						46	1	*	*
<u><i>Vomer setapinnis</i>, Atlantic moonfish</u>									
D-68-13									*
D-69-23									*
									*
									*

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch	Range (cm)
		No.	Wt. (kg)						
<u>Vomer setapinnis</u> --Cont.									
D-69-23	9	19	*	4-11				36	9-17
	10	1	*	11				44	19-23
D-69-25	13	1	*	*	Del-72-8	18	11	0.3	8-10
D-69-29	13	1	*	5				27	27
	20	4	*	4-7				0.1	9-12
	22	1	*	10				29	
	23	1	*	10				39	+
	24	1	*	5				2	10
D-71-11	21	1	+	7				43	0.1
	25	1	+	18	Del-72-15	45	1	0.1	21
	27	3	0.2	21-23				47	13-25
Del-71-2	1	1	+	5				5.9	
Del-71-3	1	4	+	5-6				4	9-20
	23	4	0.1	10-13				0.2	
	34	1	+	12				36	9-20
	35	1	+	8	D-68-13	2	6	0.6	21-24
	42	60	0.5	5-10				3	18-26
Del-72-8	40	2	+	13-14				4	
Del-72-15	37	1	0.1	16				7	
	44	2	+	11-14				10	
	45	2	0.1	18-21				6	
								17	
								32	
								42	
Lutjanus campechanus, red snapper								*	
D-69-23	4	1	*	18				1	
Rhomboplaties aurorubens, vermillion snapper					D-69-23	9	1	*	
Del-71-3	27	23	1.5	16-23	45	10	3	*	
	29	150	11.1	9-27		11	1	*	7
						16	4	*	8
						11	1	*	8
						17	1	*	
						26	1	*	

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Eucinostomus sp.--Cont.</u>									
D-71-3	33	38	0.8	9-13		16	1	0.2	25
Del-71-3	33	1	+	10		29	125	3.4	9-14
40	11	0.5		9-13		38	4	0.1	12-14
42	1	+		7		39	14	0.2	10-14
54	1	+		9		43	4	0.2	13
Del-72-15	42	2	0.1	11-14		45	46	4.2	11-25
<u>POMADASYIDAE</u>									
<u>Haemulon aurolineatum, tomate</u>									
D-69-23	1	65	*	14-21		38	88	12.2	11-25
3	11	*	*	17-20		39	2	0.1	11-12
4	2	*	*	18-22		68	14	1.7	14-25
8	3	*	*	16-19		69	370	38.6	14-23
D-69-29	17	1	*	18		70	162	19.1	14-23
18	17	2.7		17-22		71	800	65.3	12-23
19	48	6.4		15-21		<u>Haemulon carbonarium, caesar grunt</u>			
Del-71-3	13	17	2.2	16-23	D-69-29	7	1	*	16
14	14	2.0		20-25		20	1	*	18
15	1	0.1		22	D-71-11	38	108	12.2	15-23
18	10	1.2		20-22		39	5	0.6	19-22
27	388	29.0		9-27		40	27	2.6	16-24
29	130	7.1		8-27			*	*	*
36	17	0.1		7-19	Del-72-8	8			
55	40	5.4		15-26					
56	45	4.5		14-27					
57	69	9.8		14-26					
7	1	+		11	Del-71-3	56	6	1.4	10-33
8	*	*			Del-72-15	70	1	0.9	38
9	65	9.1		18-25		71	5	2.9	28-39
10	40	5.4		18-26					
<u>Haemulon plumieri, white grunt</u>									
Del-72-8									

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch Wt. (kg)	Range (cm)
		No.	Wt. (kg)						
<u>Orthopristis chrysoptera, pigfish</u>									
D-68-13	2	100	3.3	11			47	*	*
	3	250	4.5	7-12			49	*	*
	4	346	11.3	9-17			50	*	*
	5	5	0.1	*			51	*	*
	6	24	*	7-13			54	*	*
	7	24	*	12-15	D-69-9		7	1	*
	8	66	*	11-14			11	*	*
	9	229	*	*			14	*	*
	10	6	*	*			14	*	*
	11	17	2.0	*			15	20	*
	12	21	2.5	17-20			16	40	*
	15	27	*	10-15			17	12	*
	16	15	0.7	10-12			18	30	*
	17	12	*	10-13			19	20	*
	18	*	*	*			20	*	*
	19	*	*	*			21	*	*
	21	1	*	*			22	10	*
	22	*	*	*			23	*	*
	23	*	*	*			26	1	*
	24	*	*	*			27	6	*
	25	*	*	*			30	15	*
	29	*	*	*			31	30	*
	30	*	*	*			32	8	*
	31	*	*	*			33	20	*
	32	*	*	*			34	10	*
	36	*	*	*			35	5	*
	37	*	*	*			37	50	*
	38	*	*	*			38	50	*
	39	*	*	*			39	12	*
	43	36	*	*			40	40	*
	44	41	*	*			41	20	*
	45	*	*	*			42	10	*
	46	*	*	*			46	60	*

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Orthopristis chrysoptera--Cont.</u>									
D-69-23	47	25	*	*	20	3	*		12-18
	48	50	*	*	21	9	*		10-14
	50	100	*	*	22	14	*		9-14
	51	15	*	*	23	42	*		8-15
	52	10	*	*	24	5	*		11-12
	53	15	*	*	25	1	*		13
	54	10	*	*	26	15	*		10-17
	55	5	*	*	27	96	*		10-19
	57	8	*	*	33	2	0.2		19
D-71-11	1	8	*	18-22	17	1	0.1		16
	3	18	*	17-22	18	7	0.6		15-18
	4	26	*	9-12	21	11	0.9		13-21
	8	1	*	22	22	16	1.5		15-23
	9	11	*	9-16	23	14	1.0		14-18
	10	76	*	10-20	36	6	1.0		17-26
	11	124	*	10-15	40	39	5.2		11-22
	12	28	*	11-14	46	4	0.5		17-20
	14	5	*	17	Del-71-3	7	99	5.2	10-20
	15	1	*	13		12	9	1.1	16-23
	16	44	*	9-16		13	2	0.3	20-21
	22	5	*	15-17		22	6	1.0	16-23
D-69-29	6	5	*	13-20		35	3	0.3	17-22
	7	4	*	13-19		42	3	0.2	14-16
	8	1	*	12		56	15	1.1	14-23
	9	3	*	10-15		57	30	6.6	18-32
	10	2	*	17-18		58	33	2.0	13-20
	11	2	*	12		59	23	2.9	13-26
	12	3	*	12-13		8	*	*	*
	16	6	*	15-19		14	1.8	18-24	
	17	3	*	17-21		16	1	0.1	12
	18	37	4.5	14-23		17	3	0.3	21-22
	19	46	5.0	10-23					

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Orthopristis chrysoptera</i>--Cont.</u>									
Del-72-15	1	1	0.1	14	-	Del-71-3	56	18	9.5
7	8	1	1.1	20-25	-	-	57	9	2.6
8	23	2	2.0	15-24	Del-72-8	-	9	1	0.5
9	7	1	1.1	16-22	-	-	10	16	5.9
17	4	0	0.5	21-22	-	-	27	1	1.1
66	1	0	0.2	21	-	-	58	1	0.7
67	1	0	0.1	21	-	-	-	-	39
68	4	0	0.3	16-22	-	-	-	-	-
69	9	1	1.1	16-24	D-71-11	-	38	13	6.8
76	6	0	0.7	20-22	-	-	40	16	7.0
77	3	0	0.1	13	Del-71-3	-	12	1	0.8
<u><i>Archosargus probatocephalus</i>, sheepshead</u>									
D-68-13	8	1	*	52	-	-	-	-	-
21	1	2	2.3	-	-	-	-	-	-
22	1	2	2.3	46	-	-	-	-	-
9	2	10.9	52-59	-	-	-	-	-	-
11	2	*	*	51-57	Del-72-8	-	9	1	0.1
48	1	*	*	-	-	-	10	2	0.1
51	1	*	*	-	-	-	39	1	0.1
D-69-29	7	1	3.2	50	-	-	59	1	0.3
16	1	*	19	-	-	-	67	4	1.4
Del-71-3	7	1	6.2	66	-	-	68	3	2.7
27	2	4.1	46-47	-	Del-72-15	-	17	21	6.8
59	1	0.6	30	-	-	-	31	1	0.7
58	1	2.8	53	-	-	-	49	3	1.1
Del-72-8	7	5	11.8	46-52	-	-	67	43	27.2
Del-72-15	8	1	2.5	51	-	-	69	16	5.9
19	2	5.9	51-55	-	-	-	70	44	10.0
				-	-	-	71	13	5.0
				-	-	-	-	-	12-34

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Diplodus holbrookii</u> , spottail pinfish									
D-69-23	1	1	*				45	14	13-14
De1-71-3	27	1	0.6	32			46	*	*
	57	9	2.7	20-31			47	*	*
	59	2	0.1	13-17			49	*	*
Del-72-8	10	4	0.9	21-26			50	6	*
Del-72-15	17	19	5.7	20-28			51	*	*
	69	1	0.3	25	D-69-9		23	*	*
	71	2	0.6	21-25			39	15	*
							40	6	*
<u>Lagodon rhomboides</u> , pinfish									
D-68-13	2	5	*	9-12	D-69-23		51	10	*
	3	50	1.4	5-10			52	10	*
	4	*	*				3	1	*
	5	501	6.6	*			150	*	17
	6	250	6.8	5-10			4		12-18
	7	150	*	5-10			9	*	10-15
	8	36	*	10-16			10	3	10-14
	9	18	*	12-16			11	129	*
	10	1,010	*	8-10	D-69-29		18	45	15-22
	11	1	*				2	3	
	12	1	*				1	1	
	15	9	*				6	1	
	16	7	*				7	3	
	17	1	*				7	3	
	26	*	*				9	4	
	32	*	*				10	2	
	33	*	*				11	2	
	36	*	*				12	2	
	43	24	*				14	2	
	44	2	*				16	8	
			*				17	*	
			*				19	*	
			*				18	7	
			*				19	1	
			*				19	1	
			*				21	17	

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Lagodon rhomboides--Cont.</u>									
D-71-3	22	1	*	13		44	4	0.5	20-21
	23	5	*	14-16		49	12	1.2	19-20
	24	2	*	9-13		55	102	9.5	16-22
	25	1	*	10		56	3	0.7	19-28
	6	2	0.1	11-14		57	10	0.9	17-22
	7	10	0.3	10-16		58	5	0.2	14-16
	8	106	3.4	9-16		59	31	1.4	13-17
	9	19	0.8	10-16	Del-72-8	9	1	0.1	17
	11	3	+	12-15		12	22	0.7	10-15
	12	60	1.1	9-18		16	9	0.9	18-20
	13	26	0.6	8-15		17	1	0.1	18
	14	210	5.0	9-13		56	1	+	10
	15	3	+	10-13		59	1	0.1	21
D-71-11	16	3	+	9-11		71	1	+	14
	18	1	0.1	19		7	13	1.1	16-20
	33	14	1.0	15-17		8	13	0.8	15-18
	36	1	+	10		17	1	0.1	18
	37	13	0.2	9-12		19	7	0.5	18-19
	38	46	1.0	10-16		20	1	0.1	19
	21	19	0.7	12-19		21	7	0.3	12-15
	22	32	0.3	11-14		30	9	0.8	18-20
	27	1	0.1	16		36	12	0.7	15-19
	36	1	+	13		38	5	0.2	17-19
	38	28	2.0	15-20		50	6	0.6	17-18
	40	14	1.4	16-20		67	8	0.3	15-18
	7	39	1.8	12-16		69	2	0.1	18-19
Del-71-3	18	36	3.4	17-20					
	22	1	0.1	16					
	35	1	+	13					
<u>Pagrus sedecim, red porgy</u>									
Del-71-3	37	4	0.2	16-18	Del-71-3	56	7	7.7	37-47
	40	1	0.1	17	Del-72-8	29	7	8.4	36-50
	42	8	0.3	12-15		68	1	1.5	48

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Pagrus sedecim--Cont.</u>									
Del-72-15	30	1	0.1	21			6	*	10-15
	31	1	0.1	24			5	*	10-16
<u>Stenotomus caprinus, longspine porgy</u>									
D-68-13	1	108	3.9	*			23	*	11
	2	366	11.4	*			25	*	*
	8	2,564	*	9-14			100	*	10-12
	10	26	*	15-18			26	*	8-13
	10	5	*	*			27	*	9-12
	7	2	*	*			28	*	*
	10	2	*	*			29	*	*
	14	5	*	*			31	*	10-17
	16	*	*	*			35	*	11
	67	2	*	18-23			36	*	15
	1	105	*	13-18			41	*	15
	3	31	*	10-18			34	*	16
	4	*	*	*			2	*	15-20
	5	68	*	8-15			6	*	11-15
	8	66	*	9-17			4	*	13-18
	9	2	*	8-10			2	*	*
	10	71	*	9-10			1	*	11
	11	14	*	9-11			2	*	13
	12	3	*	10-11			19	*	11-13
	13	15	*	11-13			12	*	9-13
	14	15	*	11-13			4	*	8-15
	15	37	*	14-16			19	*	7-10
	17	23	*	9-15			8	*	7-10
	18	*	*	10-16			16	*	9-16
	19	*	*	*			4	*	9-14
	20	58	*	*			17	*	9-13
					D-69-29		5	*	2.0
							36	*	9-17
							19	*	8-16
							20	*	8-14
					D-71-3		14	0.2	17-18
							3	1.5	15-22
							18		
							16		

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Stenotomus caprinus--Cont.</u>									
D-71-11	14	1	+	11	De1-72-8		8	*	*
	18	259	6.0	10-12			9	82	5.4
	19	1,213	20.6	6-12			10	343	10.9
	20	630	6.8	8-11			11	49	1.6
	21	80	0.8	7-14			16	2,281	217.3
	22	43	2.3	9-18			17	577	68.0
	23	61	0.7	7-9			46	3	0.2
	24	1	+	14			59	390	53.1
	28	1	0.1	14			60	275	39.9
	31	2	0.1	13-14			61	60	7.9
	34	69	2.6	11-14			62	1,756	207.3
	36	1	+	12			63	2	0.2
	39	988	76.6	14-18			64	15	1.0
	9	54	2.5	11-17			65	4	0.5
	10	5	0.1	12-14			66	5	0.8
	12	35	1.6	13-18			67	77	2.3
	13	10	0.6	13-18			7	328	18.6
	14	71	6.4	11-23			8	135	9.3
	18	1	0.1	17			9	5	0.5
	21	2	0.1	20-21			15	250	27.2
	22	34	1.0	9-16			17	4,526	472.2
	25	8	0.5	11-18			18	10	1.5
	27	20	1.0	12-20			19	14	1.0
	44	73	6.6	13-21			29	1	+
	45	2	0.2	13-19			58	1	9
	51	80	8.3	16-23			59	3	8
	54	1	+	11			60	1	+
	55	100	8.2	13-20			61	1	0.1
	57	126	7.7	9-22			66	347	13.4
	58	92	7.0	13-20			67	214	11-15
	59	481	22.9	10-22			68	107	10-18
	62	3	+	12-13			69	200	11-18

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Stenotomus caprinus</i>--Cont.</u>									
	70	1,147	78.0	13-20		29	1	*	21
	71	279	17.7	13-21		32	1	*	12
	74	87	0.5	6-10		36	2	*	14-15
	75	30	0.1	4-8		37	1	*	11
	76	135	2.8	8-15		38	10	*	9-11
	77	18	0.2	7-13		39	5	*	11-12
<u><i>Stenotomus chrysops</i>, scup</u>									
D-68-7	13	1	*	9		46	5	*	12-18
	15	1	*	13		47	15	*	*
	16	30	*	*		48	1	*	13
	21	1	*	16		60	1	*	10
	22	3	*	17-18		61	35	*	12-15
D-68-13	2	3	*	10-11		62	33	*	12-21
D-69-9	5	4	*	10-12		63	1	*	13
	8	1	*	12		66	1	*	14
	11	20	*	*		68	*	13.2	11-24
	13	2	*	*		69	2	*	22-25
	22	10	*	*		70	5	*	11-15
	24	40	*	*	D-69-21	3	*	1.0	9-16
	37	1	*	*		4	17	*	10-11
	46	200	*	*	D-69-23	3	2	*	18-21
	62	1	*	*		4	34	*	17-22
D-69-15	10	6	*	12-14		8	7	*	6-15
	11	4	*	13-14	D-69-25	1	2	*	16-17
	12	6	*	11-13		2	1	*	10
	13	1	*	14		7	*	*	*
	14	2	*	12		8	43	*	7-17
	23	4	*	12-20		9	11	*	13-19
	26	5	*	12		10	11	*	9-18

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Stenotomus chrysops</i>--Cont.</u>									
D-69-29	12	40	*	13-16		31	2	0.1	11-12
	13	8	*	23-29		32	4	0.2	11-14
	18	2	1.0			34	198	6.4	10-21
	19	1	*	21		35	78	2.3	10-15
D-70-7	1	3	0.2	23-27		36	80	2.3	9-14
	2	2	0.1	14-15		39	26	1.5	10-24
D-70-16	1	25	0.8	10-14	D-70-19	1	18	0.7	12-15
	2	187	5.4	10-13		2	3	0.1	10-12
	3	15	0.6	11-14		3	2	0.1	13-14
	6	3	0.1	10-11		4	1	0.1	14
	7	87	2.4	9-13		6	1	0.1	12
	9	31	1.0	10-15		9	1,652	53.5	11-14
	10	2	0.1	11-13		10	11	0.2	10-13
	11	11	0.2	11-15		13	4	0.1	10-13
	12	5	0.2	12-14		15	1	0.1	12
	13	1	0.1	13		16	26	1.0	11-14
	14	95	2.9	11-19		17	10	0.2	11-14
	15	36	1.2	10-15		18	8	0.2	12-14
	16	4	0.1	11-14		23	9	0.6	11-15
	17	19	0.7	11-15		25	1	0.1	12
	18	2	0.1	13-14		29	19	0.7	11-14
	19	169	6.1	10-17		30	2	0.1	11-12
	20	12	0.5	11-15		31	3	0.1	12-15
	21	81	2.7	10-23		32	18	0.6	11-14
	23	1	0.1	12		39	10	0.5	13-16
	24	4	0.2	13-15		40	10	0.5	11-15
	25	4	0.2	12-16	D-71-3	18	56	9.3	20-26
	26	2	0.1	12-13		21	1	0.2	25
	27	217	5.4	10-16	D-71-11	4	1	+	12
	28	96	2.9	10-15		6	4	0.1	11-12
	29	113	3.7	10-16		7	93	2.9	10-15
	30	13	0.6	13-16		8	39	1.6	12-18

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch		Range (cm)
		No.	Wt. (kg)					Wt. (kg)	Wt. (kg)	
<u><i>Stenotomus chrysops</i>--Cont.</u>										
D-71-14	38	940	106.6	12-30			59	2	0.5	27-28
	40	529	40.8	15-18			68	4	0.1	11-13
	42	819	14.3	7-11	De1-72-8	8	*	*	*	*
	46	2	+	13		9	523	71.2	13-25	
	47	670	30.4	12-16		10	109	6.4	12-25	
	1	9	0.3	10-14		11	5	0.2	12-13	
	2	9	0.2	12-14		59	292	50.3	17-28	
	6	34	2.0	14-16		60	267	39.9	18-26	
	7	16	0.9	12-14		61	35	4.8	19-23	
	8	975	44.2	12-15		64	8	0.9	11-27	
	19	10	0.3	15-19		65	9	1.8	21-25	
	26	1	+	14		66	5	1.1	11-33	
	34	6	0.2	13-14		67	6	1.4	18-29	
	1	81	13.4	17-23		68	1	0.5	34	
	2	3	0.5	16-22	De1-72-15	1	3	0.2	13-16	
	3	119	2.0	7-11		40	1	0.1	21	
	4	240	4.5	9-15						
	5	90	1.2	8-10						
	6	145	2.5	9-12						
	7	25	0.7	9-18						
	8	11	1.7	16-27						
	2	3	0.3	18-19						
	3	1	0.1	13						
	5	1	0.1	20						
	6	1	0.1	18						
	18	3,604	376.0	15-22	D-68-13	6	5	*	*	*
	49	1,492	162.4	17-22		7	15	*	*	*
	50	94	10.0	17-23	D-69-9	63	1	*	*	*
	55	112	11.3	14-24	D-69-15	24	1	*	17	17
	56	30	5.0	12-26		25	3	*	16-19	
	57	69	7.9	9-26	D-69-23		28	2		17

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Bairdiella chrysura--Cont.</u>									
D-69-25	9	1	*	13	De1-72-8	1	6	0.7	17-21
D-69-29	3	8	*	7-17		35	3	0.3	13-19
	10	1	*	15	De1-72-15	58	1	+	14
	11	4	*	14-18		59	1	+	22
	16	18	*	13-19		60	1	0.1	15
	17	1	*	14					
	20	2	*	11-17					
	21	26	*	13-19					
	22	3	*	12-17					
	26	2	*	12-17					
D-70-16	9	33	3.6	16-21		35	45	0.3	5-25
D-71-3	9	9	0.5	12-18	De1-72-15	42	234	3.4	4-16
	11	12	0.8	15-19		44	40	2.2	10-20
	12	20	1.5	16-19		58	1	0.1	
	15	2	0.1	15-18					
	32	1	0.1	14					
	36	1	0.1	19					
	37	172	3.4	9-20		4	2	*	22-26
	38	8	0.5	12-20		8	12	*	22-24
D-71-11	8	3	0.2	19-20		12	2	1.4	36-38
	9	1	0.1	19		17	13	2.5	21-27
	10	16	1.7	18-20		18	15	9.1	21-38
	17	9	0.6	14-19		19	1	*	23
	46	30	2.7	15-20		22	4	0.5	39
	47	70	7.0	16-20		26	1	*	20
D-71-14	18	150	14.3	17-21		28	8	*	22
De1-71-3	7	3	0.3	19-21		29	4	0.5	22
	34	13	0.2	7-13		30	11	1.6	21-26
	35	1	0.1	12		31	33	*	24-26
	60	3	0.2	19		36	10	0.9	
	65	1	0.1	13		37	1	0.2	*
						38	1	*	26

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Cynoscion regalis--Cont.</u>									
44	16	*	16				51	20	*
46	12	*	19-22				52	30	*
47	4	*	20				53	35	*
49	185	*	24				54	200	9.1
D-69-9	4	3	*				55	150	13-20
8	25	*	14-26				56	100	13-21
14	6	0.5	*				57	1	13-20
15	25	*	19-32				63	11	*
18	1	*	17	D-69-15			11	151	52.2
20	6	*					12	102	13.6
21	3	*	24-30				13	100	49.9
23	6	*	21-24				14	2,000	204.1
27	3	*					22	40	*
28	5	*					23	625	47.6
29	5	*					24	300	22.7
32	1	*					25	160	10.9
33	5	*					29	1	*
34	8	*	20-26				36	62	20-30
35	35	*					37	77	18-33
36	25	*	15-33				38	27	*
37	87	*	13-26				39	11	18-26
38	25	*					40	16	19-27
39	20	1.8					41	32	21-24
41	25	*					42	100	20-30
42	10	*					43	17	18-28
43	10	*					46	68	20-32
44	20	*					59	1	18-38
45	20	*					61	1	14
46	2	*					62	1	30
47	6	*	24-25	D-69-21			130	2	27
50	133	*	14-26				3	8	18-26
									17-19

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Cynoscion regalis--Cont.</u>									
D-69-23	9	1	*	19		25	78	5.7	12-25
	10	5	*	25-28		26	48	4.3	12-25
	16	55	*	19-29		27	15	1.8	15-24
	18	30	*	19-31	D-70-16	5	1	0.2	23
	22	2	*	15-24		6	5	0.9	23-30
	23	1	*	22		7	9	1.6	22-28
	24	4	*	19-21		9	162	181.0	12-37
	25	51	*	21-27		10	100	26.3	18-28
	28	65	*	11-29		13	2	0.7	27-31
	29	124	*	21-28		15	63	10.4	22-29
	30	1	*	30		16	24	8.2	22-27
	32	168	*	9-29	D-70-19	5	4	0.5	20-21
	36	66	*	17-30		6	20	2.6	19-28
	44	17	*	24-35		9	1	0.2	30
	45	69	*	14-35		10	95	157.9	19-26
D-69-25	1	100	*	13-22		11	135	26.3	18-34
	2	50	*	11-35		14	2	0.6	28-31
	8	5	*	18		16	19	3.2	23-39
	9	102	*	12-36		18	4	0.7	22-27
	10	53	*	13-47		39	1	+	7
	12	135	*	13-42		40	1	+	8
	13	8	6.0	31-41	D-71-3	3	1	1.1	51
D-69-29	11	3	*	11-15		6	1	0.1	26
	12	2	*	14-19		8	2	0.3	29-30
	13	1	*	13		9	8	0.5	17-21
	16	3	*	12-22		11	88	10.7	19-31
	17	1	*	21		12	82	9.8	*
	20	176	12.9	14-26		13	4	0.6	22-27
	21	100	62.6	13-26		14	29	2.9	9-26
	22	62	7.3	19-26		15	5	0.6	19-26
	23	152	22.7	20-26		16	7	1.0	19-26
	24	131	7.0	12-22		19	1	+	12

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Cynoscion regalis--Cont.</u>									
22	5	0.1	7-9	D-71-14	6	17	10.9	27-51	
26	1	0.1	24		16	1	0.3	24	
27	4	0.1	8-11		17	356	64.6	20-36	
28	4	+	8-12		18	560	37.2	8-36	
29	2	+	15		19	37	5.4	10-36	
33	3	0.5	21-25	De1-71-2	1	3	0.2	17-21	
35	30	4.3	23-27	De1-71-3	1	28	2.3	13-25	
36	8	1.4	24-30		7	245	22.2	13-29	
37	348	11.6	11-19		34	10	0.8	15-22	
38	93	4.5	14-22		35	6	0.7	11-21	
39	1	0.2	30		42	2	0.1	16-18	
6	1	0.2	30		54	2	0.1	12-18	
7	10	2.6	28-36		58	3	1.7	35-40	
8	5	1.6	24-46		60	56	3.6	12-26	
9	1	0.1	18		61	13	2.4	21-27	
10	246	25.2	*		65	110	24.7	9-45	
11	10	1.8	23-31		66	20	5.7	7-52	
14	1	0.2	31		67	2	1.6	30-51	
17	85	5.7	11-31	De1-72-8	1	11	0.5	12-20	
18	3	0.2	19-23		2	1	1.2	45	
21	9	1.0	18-27		4	1	1.2	50	
22	2	0.2	20-22		10	1	0.2	24	
23	3	0.2	20-21		34	3	0.2	20-24	
25	3	0.3	22-24		35	8	0.3	6-23	
34	12	1.9	21-26	D-72-15	1	458	54.0	17-24	
36	1	0.1	21		29	4	0.3	19-20	
40	2	0.2	24		37	21	3.6	23-26	
42	2	0.3	24-26		58	8	0.9	12-24	
43	3	0.2	19-21		59	4	0.1	14-15	
46	45	5.9	19-47		66	1	0.1	20	
47	506	53.1	5-34		76	9	1.1	19-25	
48	951	140.2	14-29		77	8	0.8	11-25	

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Equetus lanceolatus</i>, jackknife-fish</u>									
D-69-29	19	1	*	9			*	*	*
De1-71-3	27	35	3.6	13-25			46	*	*
	44	1	0.2	20			47	*	*
	55	10	2.3	22-28			49	*	*
De1-72-8	45	17	1.4	15-25	D-69-9	31	20	*	*
	46	1	0.2	22			32	1	*
De1-72-15	17	24	3.6	20-27			37	4	*
	31	2	0.5	24-27			38	*	*
	71	6	0.9	15-27			39	6	*
				D-69-23			4	3	*
							9	2	*
<u><i>Equetus umbrosus</i>, cubbyu</u>									
G3	27	14	1.2	16-20			11	1	*
	56	16	1.2	9-21			12	3	*
	57	9	0.8	10-20	D-69-29	15	4	*	17
De1-72-8	9	4	0.2	13-19			18	3	16-20
	10	6	0.5	14-18			10	*	20-21
	16	1	0.1	19			7	1	20-22
	45	1	0.1	18			8	2	8-15
De1-72-15	69	12	1.0	14-20			11	1	14-15
	71	11	0.7	11-18			12	2	13
							13	2	12-15
							14	1	11-12
<u><i>Larimus fasciatus</i>, banded drum</u>									
D-68-13	3	15	*				15	4	7
	8	30	*	19-20			17	1	*
	16	2	*	18-19	D-71-3	24	1	*	9-12
	18	*	*	*			25	3	12-14
	29	2	*	*			26	2	17
	36	525	*	18-22			12	1	0.1
	37	*	2.0	*			28	4	7-10
	38	*	14.5	17-21			33	3	19
							37	8	11-13

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Larimus fasciatus</u> --Cont.									
D-71-11	17	18	0.9	13-17		17	895	68.0	12-20
	23	1	0.1	18		18	1,065	63.5	11-19
	34	16	1.7	17-21		21	16	1.8	12-15
	36	16	2.2	14-21		22	619	46.0	13-19
De1-71-3	7	7	0.1	10-14		23	100	7.3	12-22
	23	5	0.2	14-16		24	109	10.4	12-17
	34	51	2.7	9-18		25	15	*	12-19
	35	140	17.2	13-23		26	58	*	10-17
	42	3	0.1	6-12		27	192	16.8	15-20
	54	5	0.2	2-15		28	194	*	10-16
De1-72-8	35	1	0.1	16		29	142	8.8	12-18
De1-72-15	21	41	5.7	19-21		30	181	8.6	12-18
	29	5	0.6	19-21		31	60	3.5	11-15
	37	26	3.1	11-21		32	18	*	10-19
	44	8	0.5	10-20		33	10	0.2	11-13
	58	5	0.3	14-20		34	1	*	16
	59	21	0.2	9-13		36	489	24.0	12-17
	60	14	1.8	18-21		37	8	0.7	15-17
	77	2	0.1	13-14		38	1,944	*	11-19
<u>Leiostomus xanthurus</u> , spot									
D-68-13	2	237	8.3	12-17		43	18	*	12-14
	3	128	19.3	12-19		44	1	*	15
	4	1,595	123.8	11-20		46	55	*	10-19
	5	896	51.5	9-18		47	24	*	11-18
	6	598	7.3	9-18		48	1	*	17
	8	348	*	12-19		49	1,576	126.6	10-20
	9	58	*	13-18		50	*	*	10-18
	10	666	*	10-19		51	122	*	12-16
	12	1	*	25		52	2	*	15-21
	16	4,000	240.9	11-20		D-69-9	8	2	*
							16	7	*
							33	1	*

Cruise	Stn.	No.	Catch	Range (cm)	Cruise	Stn.	No.	Catch	Range (cm)
			Wt. (kg)					Wt. (kg)	
<u><i>Leiostomus xanthurus</i>--Cont.</u>									
			*	16-23			29	9	17-20
35	1	*					31	1	*
36	5	*					32	100	18
37	1	*					36	9	16-20
38	5	*					129	11.8	16-18
41	1	*			D-69-29	3	129	11.8	17-23
46	3	*					4	1	*
47	6	*					5	166	16-3
48	42	*					6	23	13-21
50	142	*					9	15	17-21
51	20	*					9	15	16-19
52	15	*					10	16	14-16
53	15	*					11	23	12-18
56	1	*					12	60	5-4
57	5	*					13	11	13-22
D-69-21	2	650	38.1	13-18			14	30	0.8
3	1	*					15	14	15-21
D-69-23	4	74	*	18			16	22	12-18
9	158	27.2		14-23			17	11	1-1
10	100	*		10-24			18	63	1-4
11	104	*		11-20			19	3	1-1
12	*	10.0		11-25			20	57	1-1
15	3	*		10.0			21	100	1-1
16	61	*		16-20			22	100	1-1
18	113	*		12-19			22	145	1-1
20	8	*		15-24			23	10.0	1-1
22	27	*		16-20			24	5	1-1
23	100	*		14-19			25	12	1-1
24	26	*		13-20			26	18	1-1
25	100	*		12-18	D-71-3	6	27	19	1-1
26	54	*		15-20			9	1	1-1
27	94	*		15-19			11	44	1-1
28	100	*		16-20			12	89	1-1
				15-20			13	98	1-1

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch	Wt. (kg)	Range (cm)
		No.	Wt. (kg)							
<u><i>Leiostomus xanthurus</i>--Cont.</u>										
14	86	3.4	13-19	25			2	0.1	20	
15	9	0.5	13-18	34			10	0.8	15-18	
16	6	0.2	14-15	35			145	14.2	16-23	
31	1	0.1	21	36			1	0.1	22	
32	2	0.2	21-22	42			180	17.2	14-24	
33	106	9.5	9-21	44			2	0.4	21-26	
35	2	0.1	12	46			1	0.2	23	
36	60	3.2	11-19	48			1	0.1	21	
37	620	14.1	9-18	49			2	0.5	26	
38	11	0.3	13-18	51			1	0.2	24	
D-71-11	9	0.1	9-12	52			2	0.2	22-25	
17	125	44.9	11-21	54			5	0.3	16-20	
18	125	108.0	8-21	58			13,795	1,314.1	15-21	
21	205	19.5	8-22	59			1	0.1	25	
22	142	7.3	9-20	61			3	0.3	16-18	
23	200	9.1	7-21	65			32	2.4	14-19	
24	28	2.7	17-20	66			9	0.8	15-19	
25	1,179	149.7	18-32	1			10	0.6	15-19	
34	20	2.9	18-23	9			3	0.7	24-26	
35	1	0.1	24	10			33	2.8	17-21	
36	27	2.5	12-21	11			16	1.6	17-19	
40	97	10.9	18-23	12			8	0.7	15-18	
46	145	6.6	9-30	17			270	49.0	20-26	
47	164	5.2	9-15	18			10	1.1	21-27	
D-71-14	6	43	2.7	13-17	19		171	16.3	18-23	
18	247	10.7	10-19	27			34	2.9	16-24	
19	96	5.2	12-19	33			1	0.1	21	
D-71-3	1	560	31.8	13-21	34		3	0.3	17-24	
7	32	2.8	13-21	35			826	71.2	13-24	
22	8	1.0	19-22	54			6	1.2	23-26	
23	5	0.2	15-18	55			97	9.5	16-22	
24	3	0.3	21-23							

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Leiostomus xanthurus</i>--Cont.</u>									
Del-72-15	1	20	1.1	14-19		10	4	*	18-19
	7	2	0.2	18-22		11	5	*	12-19
	8	11	0.9	17-20		12	5	*	13-28
	9	23	2.0	17-21		13	3	*	16-18
	17	11	1.6	20-23		15	3	*	7-19
	21	34	2.7	15-21		16	6	*	19-30
	22	15	2.6	14-27		17	12	*	24-31
	29	23	1.6	15-18		20	37	6.6	10-28
	30	54	4.8	11-21		21	18	4.1	22-29
	37	59	6.1	16-20		22	1	*	20
	39	1	0.1	12		23	5	*	22-27
	44	174	14.3	14-21		24	30	*	10-31
	50	2	0.2	17-18		25	17	1.8	*
	58	28	2.0	15-19	D-71-3	26	1	*	23
	59	43	2.4	13-17		12	2	0.8	29-35
	60	14	1.0	16-19		13	9	1.2	19-29
	61	3	0.3	18-19		16	3	0.9	29
	67	8	0.6	16-19		17	4	0.8	24-26
	68	1	0.1	16		19	9	1.6	*
	69	1	0.2	23		22	23	2.7	*
	77	67	4.5	14-18		23	13	2.0	*
						24	5	1.4	24-30
						25	6	1.4	25-28
						27	10	0.9	13-23
<u><i>Menticirrhus americanus</i>, southern kingfish</u>									
D-69-23	9	5	*	16-27		28	3	0.3	*
	11	8	*	24-28		29	4	0.1	8-16
	12	2	*	24-26		30	39	6.4	12-29
	16	13	*	16-29		31	3	0.7	27-28
	20	1	*	26		32	16	1.5	*
D-69-29	3	2	*	18		33	2	0.1	14-23
		2	*	23		35	4	0.5	22-25

## Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Menticirrhus saxatilis--Cont.</u>									
	14	14	*			41	8	*	18-31
	16	1	*			42	1	*	*
	18	12	*			43	9	*	22-30
	19	15	*			44	1	*	21
	20	11	*			46	10	*	23-34
	22	30	*		D-69-23	48	8	*	23-31
	23	24	*			58	4	*	23-29
	28	6	*			59	2	*	17-27
	29	10	*			60	3	*	24-35
	30	6	*			15	2	*	21-23
	32	2	*			16	1	*	18
	34	6	*			18	1	*	26
	35	10	*			20	6	*	18-30
	41	4	*			23	6	*	18-30
	45	1	*			25	58	*	16-30
	46	2	*			26	1	*	23
	47	5	*			27	1	*	20
	48	10	*			28	11	*	16-21
	50	20	*			29	5	*	20-28
	52	15	*			32	39	*	11-33
	53	20	*			36	4	*	16-20
	54	6	*			44	2	*	19-20
	55	2	*		D-69-25	45	10	*	18-32
	63	1	*			1	3	*	20-23
D-69-15	11	4	*			2	13	*	17-23
	12	6	*			8	16	*	18-24
	13	3	*			9	58	*	15-41
	25	1	*			10	5	*	19-35
	26	1	*			12	57	*	15-36
	36	1	*			13	5	*	31-35
	38	4	*		D-69-29	7	1	*	26
	40	15	*		20-38	8	3	*	20-35

## Appendix Table 2.--Continued.

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	stn.	No.	Catch	wt. (kg)	Range (cm)
		No.	Wt. (kg)							
<u><i>Micropogon undulatus</i>--Cont.</u>										
5	1,590	79.8	14-22	45			*	2.0	20-25	
6	580	16.0	14-21	46			489	44.9	14-23	
7	184	9.1	13-23	47			660	35.2	14-22	
8	872	*	16-26	48			*	1.4	15-19	
9	58	*	18-23	49			4,058	172.8	16-23	
10	32	*	15-18	50			*	*	12-21	
15	82	7.3	21-25	51			*	9.3	15-23	
16	2,225	185.5	15-26	52			*	*	*	
17	1,610	122.5	14-25	D-69-9			8	42	*	
18	2,070	172.4	15-26				14	83	*	
19	2,236	181.4	15-27				15	525	*	
21	166	12.9	16-29				16	37	*	
22	217	34.5	17-30				17	56	*	
23	*	38.1	16-28				18	55	*	
24	176	15.9	15-28				19	77	*	
25	760	51.3	14-23				20	1,500	22.7	
26	1,029	47.2	14-21				21	51	*	
27	13	1.1	16-26				23	700	59.0	
28	1,271	110.0	15-25				27	2,100	140.6	*
29	659	52.4	15-24				28	110	*	
30	1,479	115.9	13-24				29	*	18.1	*
31	1,627	80.3	15-22				30	2,000	*	*
32	927	69.9	15-24				31	680	*	
33	243	13.6	15-25				32	*	68.0	
34	93	3.6	15-22				33	3,000	136.1	*
36	2,812	229.1	15-23				34	1,500	68.0	11-25
37	152	16.1	16-26				35	1,000	45.4	*
38	4,006	*	14-25				36	75	*	13-25
39	438	55.3	15-25				37	200	*	*
42	36	*	15-28				38	50	*	*
43	118	10.9	17-23				39	350	22.7	*
44	102	*	20-26				40	3,000	226.8	15-17

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Micropogon undulatus</i>--Cont.</u>									
41	500	*	*	D-69-29	12	7	*	16-21	
42	50	*	*		15	2	*	13-14	
43	2,000	68.0	*		16	1	*	17	
44	1,000	136.1	*		17	15	1.2	17-24	
45	500	*	*		18	16	1.9	18-23	
46	12	*	*		19	2	*	18-21	
47	250	*	*	19-27	20	61	3.9	16-21	
48	100	*	*		21	101	6.8	15-21	
50	25	*	*	20-33	22	122	9.8	15-22	
51	20	*	*		23	54	4.3	16-23	
52	20	*	*		24	7	*	6-20	
53	74	*	*	14-23	25	53	3.9	16-21	
54	75	13.6	*		26	195	24.9	11-25	
55	30	*	*	12-17	27	282	39.5	20-25	
56	6	*	*	13-14	8	2	0.2	22-25	
57	70	*	*		9	375	53.1	14-22	
D-69-23	4	*	*		11	151	11.1	17-25	
	5	1	*	17	12	131	29.7	17-25	
	9	120	24.9	14-19	13	1	0.1	17	
	10	106	*	15-27	14	20	2.3	19-23	
	11	106	*	12-25	33	1.2	1.1	20-23	
	12	*	7.7	*	35	140	13.6	11-24	
	15	18	*	22-27	36	21	1.8	18-22	
	16	100	27.2	13-25	37	168	4.8	10-18	
	17	5	*	24-27	38	56	4.1	11-21	
	18	106	*	11-29	13	98	11.1	12-27	
	19	3	*	*	17	125	65.8	16-19	
	22	5	*	20-25	18	15	1.1	17-21	
	23	3	*	21-27	21	291	21.1	17-22	
	24	7	*	16-17	22	33	2.5	11-21	
	25	22	*	22-27	23	177	12.0	17-21	

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Micropogon undulatus</i>--Cont.</u>									
24	4	0.5	19-20	D-71-3	22		1	*	11
25	3	0.2	20-21		29		2	34.5	97-101
34	32	2.0	15-19	De1-72-15	77		1	3.7	85
36	2	0.1	19						
40	86	7.9	18-22						
43	43	6.1	19-24						
7	335	24.5	16-25	D-71-3	19		1	6.8	88
9	8	1.6	22-27						
23	2	0.1	16-18						
26	1	0.1	24						
34	12	1.2	17-23	D-71-3	37		1	*	13
35	37	4.0	15-28	De1-72-8	35		2	0.1	12-14
36	106	12.9	19-24	De1-72-15	58		15	0.6	13-15
42	15	1.5	15-28		59		4	0.1	10-11
45	1	0.1	23						
47	1	0.1	22						
57	1	0.2	27						
58	9	1.1	23-25						
60	1,287	221.8	18-27	D-68-13	32		*	*	*
61	22	5.0	23-27	D-69-25	10		1	*	9
De1-72-8	10	5.4	18-27	De1-71-3	27		8	0.6	17-22
11	73	5.9	15-23		45		1	0.1	18
12	5	0.7	17-22		51		1	+	15
35	58	4.5	5-24		56		1	+	16
De1-72-15	44	4	0.1	11-16	27		2	0.1	18-19
	77	1	+	15	39		2	0.1	16-18
					De1-72-15		3	0.3	19-22
							1	0.1	21
<u><i>Pogonias cromis</i>, black drum</u>									
D-68-13	6	1	*					*	
D-69-9	44	1	7.7					78	

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Chaetodipterus faber</i>--Cont.</u>									
D-68-13	2	27	*	6-9	D-71-11	30	8	0.9	13-16
	3	9	*	*		34	8	0.7	12-15
	4	*	*	*	Del-71-3	40	3	0.2	14-15
	5	*	*	*		7	1	+	8
	6	2	*	*		14	1	0.1	11
	7	14	*	*		26	1	0.1	11
	8	30	*	7		27	2	0.9	22-26
	9	24	*	*		28	31	4.3	12-19
	11	1	*	*		33	3	0.5	17
	16	3	*	*		34	10	0.2	6-9
	19	*	*	*		41	2	+	7-8
	24	1	*	*		42	3	0.1	6-12
	26	1	*	*		43	25	4.1	12-17
	32	*	*	*		44	1	0.5	24
	33	*	*	*		45	1	0.1	11
	39	*	*	*		50	1	0.1	14
	40	*	*	*		51	1	0.1	12
	42	*	*	*		56	5	1.3	12-22
	43	*	*	*		57	4	0.2	10-25
	44	1	*	*	Del-72-8	8	*	*	
	45	2	*	*		9	1	0.2	19
	46	5	*	*		35	1	+	10
	51	*	*	*	27-33	7	1	0.1	13
D-69-23	5	1	*	*		17	2	1.0	17-30
	9	3	*	*		44	1	0.1	13
	12	4	*	*		57	2	0.2	14-16
	14	1	*	*		62	1	0.1	14
D-69-29	23	6	*	*		10	4	0.8	16-17
	25	1	*	*		6-7	6		
D-71-3	31	4	0.5	15-16					

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
CHAETODONTIDAE									
	<i>Chaetodon ocellatus</i> , spotfin butterflyfish						<i>Tautogolabrus adspersus</i> , cunner		
Del-72-15	49	1	0.1	13	D-68-7	4	15	*	14-29
	<i>Holocanthus bermudensis</i> , blue angelfish				D-69-15	16	2	*	24-28
Del-72-8	45	1	0.1	15	D-70-16	15	1	*	21
Del-72-15	31	1	0.3	20		30	3	*	17-28
	49	4	2.9	27-30		37	30	2.9	14-24
					D-70-19	38	3	0.3	17-18
						38	1	0.1	19
LABRIDAE									
	<i>Halichoeres radiatus</i> , puddingwife						<i>Mugil cephalus</i> , striped mullet		
Del-71-3	27	2	0.2	6-16	D-71-11	27	38	0.1	5-7
	<i>Hemipteronotus novacula</i> , pearly razorfish						<i>Sphyraena barracuda</i> , great barracuda		
D-69-23	8	1	*	*			<i>Sphyraena borealis</i> , northern snapper		
Del-71-3	17	2	0.2	19-21	Del-71-3	42	1	+	12
Del-72-15	64	1	0.1	18					
					D-69-25	8	1	*	21
							<i>Sphyraena guachancho</i> , gauguanche		
Lachnolaimus maximus									
D-68-13	7	44	*	*					
Del-72-8	8	1	*	32					
					Del-72-15	17	1	0.3	41
	<i>Tautoga onitis</i> , tautog								
D-69-15	30	11	*	19-31					
D-69-23	3	1	*	19					
D-70-16	37	1	0.2	22					
Del-71-3	59	2	1.4	32	D-69-9	6	1	*	*
						7	*	*	*
						47	1	*	*

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<b>TRICHIURIDAE</b>									
							<i>Trichiurus lepturus</i> , Atlantic cutlassfish		
<i>Astroscopus y-graecum</i> , southern stargazer									
Del-72-8	15	1	0.3	24	D-68-13	16	1	*	9
Del-72-15	31	1	0.2	25	D-69-29	9	1	*	15
<i>Kathetostoma albignitta</i> , lancer stargazer									
Del-71-3	11	1	0.1	17	D-71-3	16	2	*	14-20
	49	1	0.1	16	De1-71-3	22	1	*	20
Del-72-8	18	1	0.2	17		35	7	0.8	26-34
	19	3	0.5	14-19		42	4	0.1	42
	25	1	+	13	De1-72-8	1	4	0.1	20-32
	39	2	0.2	17-19		6	1	+	29-47
	46	1	0.1	19		34	1	+	15
	52	1	0.1	20	De1-72-15	1	3	0.1	23
	63	6	0.5	10-21		44	21	0.1	15-31
	75	1	0.1	13		66	3	+	11-38
	14	1	+	12					35-41
Del-72-15	30	1	0.1	13	<b>SCOMBRIDAE</b>				
	31	2	0.1	13-14					
	39	1	0.1	13	D-69-9	4	1	*	
	52	1	0.1	19		64	2	*	*
	72	1	0.1	20	D-69-15	33	1	*	25
						64	300	*	7
									6-8
<b>BLENNIIDAE</b>									
<i>Hypleurochilus geminatus</i> , crested blenny									
Del-72-8	58	1	+	4	D-69-23	38	2	*	11-17
					D-69-25	10	3	*	13-14
<i>Ammodytes americanus</i> , American sand lance						11	32	*	13-16
D-71-3	41	1	+	18		12	12	*	
					D-70-19	31	21	1.0	12-36
						33	288	7.3	13-16
						34	13	0.3	13-15
						1	1	+	12

Appendix Table 2.--Continued.

Appendix Table 2.--Continued.

Cruise	Stn.	Peprilus triacanthus--Cont.		Range (cm)	Cruise	Stn.	Peprilus triacanthus--Cont.		Range (cm)
		Catch No.	Wt. (kg)				No.	Wt. (kg)	
<u>D-68-13</u>									
15	1	*		10			38	*	12-15
17	30	*	8-10				39	34.9	10-17
18	3	*	*				42	20	13-16
19	7	*	7-9				43	19	12-15
20	20	*	8-13				44	33	11-15
21	5	*	8-13				45	3	13
22	1	*	12				46	341	11-18
2	2	*	12-14				48	1	*
3	150	2.3	11-15				49	2,490	10-19
4	*	*	*				50	*	12-18
5	*	*	*				51	*	13-16
7	231	10.9	11-17				52	3	*
9	30	*	11-14				39	*	8-10
10	170	*	11-19				4	*	*
11	1	*	14				6	*	*
12	4	*	14-20				8	231	*
15	6,587	26.4	10-17				13	50	*
16	1,745	96.6	11-17				14	*	13.6
17	*	29.5	*				15	300	*
18	*	68.0	*				16	100	*
19	*	38.6	*				17	24	*
21	641	44.0	11-17				18	50	*
22	321	27.4	12-17				20	*	2.3
23	462	30.4	12-16				21	250	*
24	389	25.9	12-18				26	15	*
25	17	*	12-15				28	15	*
29	610	31.1	10-17				29	30	*
30	9	0.5	*				30	50	*
31	8	0.2	*				31	50	*
34	6,310	299.4	11-19				32	30	*
36	*	161.0	*				33	20	*
37	1,243	66.9	10-16				35	50	*

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch	Wt. (kg)	Range (cm)
		No.	Wt. (kg)							
<u><i>Peprilus triacanthus</i>--Cont.</u>										
36	*	136.1	9-16				35	*	2.7	*
37	*	272.2	*				37	4	*	17-21
38	1,000	226.8	*				43	*	3.4	*
40	150	*	*				46	*	*	11-21
41	1,000	*	*				49	*	36.7	12-18
42	30	*	*				61	25	*	6-18
43	300	18.1	*				62	28	*	16-23
44	*	13.6	*				63	1	*	8
45	200	*	*				68	50	*	6-16
46	2	*	12				70	1	*	15
48	6	*	*	D-69-21			70	1	*	5
54	300	*	*				1	1	*	11-19
55	20	*	*	10-12			2	122	*	9-20
57	400	13.6	*	12			3	80	*	5-10
58	30	*	*				4	17	*	10-15
64	4	*	*				5	10	*	8-14
65	5	*	*	9-12			9	2	*	11-15
66	2	*	*				10	14	*	8
68	3	*	*				11	17	*	5-16
11	*	23.6	6-17				18	13	*	*
12	38	*	10-22				21	*	*	8-13
13	19	*	13-20				23	3	*	*
14	130	*	13-16				25	*	*	7-16
18	1	*	15				28	21	*	*
19	*	7.3	*				29	1	*	8
20	2	*	*				30	5	*	5-16
22	2	*	18-19				31	35	*	5-17
23	2	*	16-17				36	36	*	7-17
26	2	*	9-10				37	150	*	5-12
29	1	*	6				38	*	*	6-10
30	*	3.6	*				43	8	*	8-11
32	1	*	*				45	3	*	9-11
							17			

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Peprius triacanthus</i>--Cont.</u>									
D-69-25	1	100	*	7-19		16	1,000	27.2	6-17
	2	*	*	*		17	1	0.1	18
	8	*	*	7-13		18	9	0.5	7-15
	9	*	*	*		19	2	+	8-9
	11	100	*	*		20	25	0.5	5-9
	12	*	*	*		21	3	0.1	7-19
	13	*	*	*		27	20	0.5	7-8
D-69-29	7	1	*	17		28	12	0.1	7-13
	16	21	*	11-17		29	2	0.1	15-18
	17	2	*	13-15		31	2	0.1	9-17
	18	2	*	13-14		32	25	1.0	7-18
	21	1	*	13		33	22	1.1	14-19
	22	62	*	9-17		34	3	0.1	16
	23	31	*	7-17		35	6	0.2	15-17
	25	3	*	9-13		39	2	0.1	8
	26	11	*	6-13	D-70-19	1	142	1.8	7-16
D-70-7	1	1	+	12		2	99	0.8	7-10
	2	27	1.1	12-20		5	20	0.9	9-18
	3	1	0.1	17		6	20	0.7	9-16
	28	1.6	7-20			7	3	0.1	8-18
D-70-16	1	48	2.5	5-25		8	800	29.0	9-20
	2	6	0.1	7-17		9	17	0.7	9-17
	3	1	0.1	15-17		10	165	8.8	11-19
	4	7	0.5	15-17		11	47	2.5	11-18
	6	146	4.6	10-20		15	14	0.1	4-11
	7	170	6.1	12-17		17	123	2.5	7-12
	8	1	0.1	16		18	4	0.1	10-12
	9	19	1.0	13-17		23	5	0.1	5-9
	11	4	0.1	10-13		30	147	2.6	5-18
	12	1	0.1	12		31	73	3.5	5-21
	14	7	0.2	13-19		32	11	0.6	10-18
	15	58	2.6	10-21					

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Peprilus triacanthus</i>--Cont.</u>									
D-71-3	34	2	+	9-10		1.9	120	5.4	12-16
	39	63	1.4	8-17		21	9	0.1	7-9
	40	2	+	7-10		22	200	9.1	11-18
	7	8	+	3-12		23	135	3.7	9-18
	8	7	0.1	9-12		41	550	15.0	10-15
	9	46	1.0	9-14		42	19	0.6	9-16
	10	4	+	4-6		45	23	0.7	10-20
	14	320	12.7	12-16		46	80	3.6	10-17
	15	14	0.1	4-16		47	296	8.4	10-16
	16	3	+	4-7	D-71-14	48	129	10.2	13-25
D-71-14	18	1	0.1	18		1	773	3.3	5-17
	19	7	+	4-10		2	23	0.1	2-9
	22	25	0.2	5-10		3	4	+	8-10
	23	2	+	5-7		6	44	2.3	12-21
	24	1	0.1	17		7	1	+	8
	25	5	+	2		9	35	0.1	7-9
	27	2	0.1	9-10		16	21	0.2	7-12
	33	2	0.1	16-17		17	375	3.4	7-16
	38	1	+	11		18	26	1.9	13-21
	2	2	0.1	8-10		19	5	0.2	12-15
D-71-11	3	1	+	8		23	79	0.5	6-15
	7	8	0.3	13-16		24	28	0.1	5-8
	8	3	0.1	14-16		25	180	1.0	6-8
	9	20	0.8	11-16		27	50	0.1	5-8
	10	31	1.0	11-15		28	7	0.1	7-14
	11	2	0.1	14-19		29	53	0.6	9-18
	12	1	+	7		34	72	0.2	7-11
	13	42	2.4	10-17		1	221	4.5	9-15
	14	83	5.4	10-18		2	161	1.9	5-12
	15	250	6.8	9-15	D-71-3	1	369	37.6	12-23
D-71-3	16	192	5.4	9-15		2	360	8.2	6-18
	17	5	0.2	13-16		7	108	5.9	11-19

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<i>Peprilus triacanthus</i> --Cont.									
9	1,045	52.2	11-21			21	1	0.1	15
11	20	1.9	17-20			22	19	1.4	16-20
22	3	0.5	19-21			30	24	1.1	15-19
23	52	1.4	14-17			37	5	0.3	14-17
36	1	0.1	19			38	1	+	15
42	1	0.1	22			44	4	0.1	14-15
49	2	0.2	10-23			45	48	2.3	13-17
58	2	0.2	19-20			50	4	0.2	15-18
61	5	0.3	12-21			51	3	0.1	14-18
62	1	+	9			66	20	0.6	12-16
66	3	0.2	12-19			68	1	+	17
6	3	0.2	14-20			76	5	0.1	13-15
Del-72-8	4	0.1	13-15						
6	10	0.9	13-29						
11	6	0.2	13-14						
12	1	+	11						
13	72	3.1	12-16						
19	280	12.7	11-19						
27	45	1.9	13-18						
34	57	2.4	13-19						
35	2	0.1	15-16						
40	63	2.9	13-19						
47	33	1.4	14-17						
55	31	1.1	12-21						
63	4	0.3	17-20						
64	6	0.1	12-14						
71	141	5.4	12-20						
Del-72-15	1	1,000	36.3	10-15	D-69-23	1	5	*	11-26
2	1	+	11		D-69-29	12	1	*	6
5	2	+	10-12			18	1	*	6
6	22	1.4	14-20			19	1	*	5
	8	0.1	13-15						

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)					
		No.	Wt. (kg)				No.	Wt. (kg)						
<b><u>Scorpaena</u> sp.--Cont.</b>														
D-71-3														
25	5	+		7-11			11	2	0.1					
31	3	0.1		8-11			36	8	0.1					
33	5	0.1		8-12			43	1	+					
30	1	+		9					6					
D-71-11														
Del-71-3	35	1	+	12			27	1	+					
36	4	+		5-7			39	22	0.5					
44	2	0.1		12-15			14	2	0.1					
47	1	+		9			30	1	0.1					
50	3	0.2		13-16			39	2	+					
51	2	0.1		11			72	1	+					
55	2	0.4		16-27			73	1	+					
56	3	0.7		11-28					12					
57	3	1.1		26-31										
16	1	+		8										
17	6	0.3		11-16			11	1	*					
18	9	0.2		7-11			19	18	+					
26	18	1.1		8-21			65	37	0.5					
37	1	+		12					11					
38	4	0.1		10-14					14-24					
39	3	0.1		9-10					8-10					
43	4	0.1		10-15			19	1	*					
45	1	0.1		14			18	50	0.3					
46	30	2.3		10-25			19	5	+					
53	2	0.1		14			23	11	0.6					
31	21	4.1		10-29			24	3	+					
39	5	0.1		8-12			32	1	11					
40	11	0.5		11-14			39	4	3-6					
41	12	0.5		9-13			19	8	13-16					
63	2	0.1		15-18			55	4	0.2					
71	3	0.6		19-26			63	4	0.1					
72	2	0.1		19			14	2	0.1					
73	1	+		11			38	3	14-15					
									15					

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Prionotus alatus</i>--Cont.</u>									
	65	69	2.4	13-16	D-69-15	7	6	*	*
	72	1	+	6		8	7	*	*
	73	5	0.1	12-15		9	*	27.2	*
						10	*	167.8	*
						11	*	122.5	*
						12	*	258.6	*
						13	*	27.2	*
						14	3,700	340.2	*
						15	*	27.2	*
						16	4	*	20-30
						18	2	*	*
						20	5	*	
						21	6	*	
						22	500	*	
						24	350	40.8	*
						25	7	*	
						26	*	20.4	*
						27	*	18.1	*
						28	*	870.9	*
						29	*	54.4	*
						30	3	*	
						31	1	*	26
						32	2	*	26-27
						33	1	*	26
						35	26	*	*
						36	4	*	21-28
						37	35	*	*
						38	*	*	
						39	*	176.9	*
						40	*	90	*
						41	*	13.6	*
						23			

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Prionotus carolinus--Cont.</u>									
	42	*	*				9	1	*
	44	*	40.8	*			10	2	*
	45	*	68.0	*			11	21	*
	46	*	6.8	*			12	40	*
	47	*	*	*			13	*	*
	48	*	*	*			14	*	*
	49	*	*	*			15	*	*
	50	*	*	*			16	*	*
	52	2	*	*			19	*	*
	54	8	*	*			20	1	16
	55	4	*	*			21	*	*
	56	*	*	*			22	5	*
	57	*	*	*			24	2	*
	58	*	*	*			25	*	*
	60	*	*	*			28	2	*
	61	*	*	136.1			29	*	*
	62	*	129.3	*			30	*	*
	63	*	*	*			31	*	*
	65	1	*	23			32	7	*
	68	*	13.6	*			33	*	*
	69	*	226.8	*			34	*	*
	70	*	38.8	*			35	*	*
D-69-21	1	*	*	*			36	*	*
	2	44	*	*			37	12	*
	3	300	*	*			38	2	*
	4	*	*	*			39	*	+
	5	14	*	*			40	*	*
D-69-23	1	*	*	*			41	*	*
	2	3	*	*			42	14	*
	5	1	*	*			43	22	*
	7	1	*	*			45	*	*
	8	2	*	*					
									21-32

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Prionotus carolinus</i>--Cont.</u>									
D-69-25	3	1	*			14	910	134.3	*
	4	6	*			15	28	4.1	23-30
	5	*	*			16	300	23.1	23-30
	6	*	*			17	9	1.4	23-28
	7	*	*			18	24	3.4	21-27
	8	2	*			19	80	7.9	23-28
	9	6	*			20	13	2.2	24-29
	10	2	*			21	250	27.9	14-29
	11	1	*			22	27	4.4	13-29
	13	2	*			23	23	3.7	22-29
	1	2	*	18-22		24	21	3.3	15-31
	6	1	*	19		25	32	4.4	13-28
	18	3	*	23-27		26	9	0.7	12-27
	19	55	7.3	*		27	200	21.3	*
	20	2	*	23		28	308	38.1	*
	23	1	*	11		29	74	6.8	10-29
	27	*	*			30	12	1.1	13-26
D-70-7	2	1	+			31	16	2.0	13-29
	3	1	0.1			32	7	0.5	12-22
	4	3	0.2	12-13		33	1	0.1	22
	40	40	1.6	11-25		34	304	41.3	*
D-70-16	1	2	31	1.8		35	79	7.3	12-27
	3	8	0.5	12-21		36	101	7.8	11-29
	5	3	0.5	28-29		37	1	0.1	1.7
	6	75	10.2	23-28		39	52	4.1	12-30
	7	613	66.2	*		40	11	0.8	13-28
	8	31	3.6	21-27		41	3	0.1	14-20
	9	84	14.1	*		42	1	0.1	26
	10	20	4.2	22-30		43	5	1.0	26-29
	11	130	18.6	*		44	45	7.3	15-28
	12	220	80.7	22-26		45	730	74.2	20-26
	13	130	33.1	22-26		46	648	117.5	20-26

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	wt. (kg)				No.	wt. (kg)	
<u><i>Prionotus carolinus</i>--Cont.</u>									
9	172	11.1	13-29				7	1,087	21-27
10	18	4.1	21-30				8	43	14-29
11	2	0.5	28-29				9	6	12-28
12	2	0.5	26-30				10	295	17-26
13	467	63.5	21-29				11	3,032	17-28
14	1,040	117.9	21-28				12	373	44.6
15	19	2.7	21-28				15	4	18-27
16	228	28.1	11-30				17	1	0.2
17	14	2.3	20-28				18	1	13-15
18	29	4.8	11-31				19	40	0.1
19	36	6.4	23-28				20	21	0.1
20	2	0.2	23-27				21	121	0.9
22	19	2.8	22-29				22	7	10-19
23	896	127.0	13-28				23	21	0.5
24	320	41.7	16-26				24	121	11-20
25	4	0.3	23-26				25	2.9	12-24
27	1	0.1	23				26	+	8-12
28	1	0.1	25				27	7	
29	628	71.2	12-26				28	3	
30	114	18.1	16-30				29	0.1	
31	79	12.7	22-29				30	0.1	
32	720	98.0	12-18				31	2	
33	2	0.5	25-28				32	0.1	
36	52	6.8	21-27				33	1	
37	1	0.1	24				34	1	
39	26	1.5	12-20				35	57	
40	190	8.2	9-25				36	1	
D-71-3	15	+	11-14				37	1	12-21
D-71-11	16	6	11-14				38	78	12-25
D-71-11	4	1,173	159.7				39	57	13-28
D-71-11	5	1,194	182.8				40	1	14-28
	6	640	87.1				41	78	15-29
							42	4	8-12
							43	23	0.5
							44	421	0.1
							45	19	54.9
							46	20	2.3
							47	800	2.5
							48	2,126	12-31
									14-24
									17-27

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Prionotus carolinus--Cont.</u>									
D-71-14	1	7	0.5	15-27		26	34	1.5	15-18
	2	3	0.5	25-28		27	4	0.1	16-22
	3	1	0.2	31		31	1	0.1	20
	6	9	0.7	18-22		43	1	0.1	18
	7	66	6.1	18-30		49	8	0.7	20-24
	8	1,003	154.7	20-27		50	53	4.3	15-24
	16	1,138	67.1	20-27		51	54	4.3	15-24
	17	2,286	228.2	18-25		52	1	0.1	23
	18	5	0.6	18-24		54	13	0.5	10-14
	19	2	0.2	25-27		55	47	5.7	19-25
	24	22	2.7	23-27		56	37	4.1	16-26
	25	65	10.4	23-29		57	20	2.3	19-26
	26	200	29.5	17-30		58	36	4.3	18-26
	27	20	2.9	18-29		61	8	1.1	18-29
	28	1	0.1	24		62	2	0.2	18
	3	6	0.8	21-27		63	6	0.3	18-20
	4	4	0.6	21-26		64	17	1.2	17-24
	5	1	0.1	28		68	22	1.8	4-26
	6	9	1.4	19-25		7	1	0.1	19
	7	13	1.7	23-26		17	295	26.8	17-26
	8	23	3.5	18-30		18	3	0.3	18-24
	5	10	0.6	14-26		26	2	0.2	20-21
	6	26	1.8	16-29		30	1	0.1	19
	7	1	0.1	16		33	1	+	15
	8	4	0.2	18-22		46	20	1.9	19-24
	9	8	0.3	16-18		54	8	0.5	18-21
	12	1	0.1	26		8	9	0.9	18-27
	13	4	0.5	19-26		9	9	1.2	20-26
	16	7	1.2	22-25		11	2	0.2	25-26
	17	4	0.3	22-23		15	15	0.9	19-23
	18	5	0.6	22-24		17	17	12.7	20-26
	20	4	0.2	17-19		21	1	0.1	12

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Prionotus carolinus</i>--Cont.</u>									
27	1	0.1	21				25	2	*
29	1	+	9				47	1	*
31	25	2.9	21-25	D-69-15			10	1	*
40	2	0.1	20-21				11	1	*
49	1	0.1	20				12	2	*
52	1	0.1	20				13	15	*
59	95	0.6	7-12				14	25	3.6
60	76	1.2	7-14				15	6	31-33
62	2	0.1	20-21				21	14	*
63	5	0.3	20-23				22	12	21-30
67	1	+	16				25	8	*
68	3	0.1	15-19				26	18	*
69	65	6.1	16-26				27	13	16-20
70	143	17.2	19-26				29	11.3	18-26
71	10	1.2	20-24				34	1	*
76	57	4.0	12-23				35	4	26
77	32	1.0	3-19				36	20	*
							37	15	*
							38	*	*
							39	6	*
							40	20	*
D-68-7	1	33	*				41	25	*
	2	6	*				42	*	*
	3	4	*				43	*	13.6
	10	5	*				44	*	18.1
	12	71	*				45	*	13.6
	13	7	*				46	*	6.8
	14	6	*				47	*	*
	15	1	*				48	*	*
	17	1	*				49	*	*
D-69-9	2	2	*				50	6	*
	7		*						

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch	Range (cm)
		No.	Wt. (kg)					wt. (kg)	
<u>Prionotus evolans--Cont.</u>									
55	2	*	*		D-69-25	1	100	*	*
56	*	*	*			2	*	*	*
57	*	*	*			6	*	*	*
58	*	*	*			7	*	*	*
60	*	*	*			8	11	*	*
61	*	27.2	*			9	16	*	*
62	*	81.6	*			10	6	*	*
63	6	*	*			11	3	*	*
68	*	4.5	*			13	3	*	*
69	*	9.1	*		D-69-29	7	1	*	22
70	*	2.0	*			12	1	*	39
120	2	15	*		D-70-16	1	4	1.4	28
D-69-21	1	5	*			2	3	1.2	23-37
D-69-23	8	1	*			3	3	1.1	30-31
13	7	*	*			5	3	0.5	14-34
15	17	*	*			6	1	0.7	32
16	*	*	*			7	1	0.1	17
20	1	*	*			9	2	0.1	15-17
22	3	*	*			10	9	1.1	15-34
27	1	*	*			12	2	0.2	16-24
28	1	*	*			13	6	1.2	22-27
29	20	*	*			14	9	1.8	18-34
31	10	*	*			15	7	1.1	17-34
32	4	*	*			16	6	1.2	17-31
33	2	*	*			17	8	1.6	18-34
35	*	*	*			18	7	1.6	19-27
36	*	*	*			21	20	4.3	17-35
37	22	*	*			22	2	0.2	21-27
38	1	*	*			23	5	0.9	17-30
39	2	*	*			24	2	0.2	20-25
44	1	0.1	*			26	5	1.2	*
45	*	*	*			29	7	1.2	16-38

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Prionotus evolans--Cont.</u>									
D-70-19									
34	150	13.6	*				33	1	0.5
35	16	1.5	16-24				39	10	1.8
	31	2.0	17-22				40	29	5.0
				D-71-11			3	2	0.6
37	1	0.1	17				4	19	7.9
39	3	1.2	26-32				5	7	2.0
1	8	2.2	18-35				6	6	1.6
2	3	0.3	21-24				7	18	4.8
							8	25	3.9
3	1	0.1	21				9	155	44.0
4	1	0.2	26				10	7	2.8
6	7	1.2	16-33				11	6	1.7
							15	1	0.1
7	4	0.5	21-22				18	3	0.3
8	1	0.7	32				19	6	0.9
9	13	1.1	15-30				38	1	0.2
10	2	0.8	32-33				43	2	0.2
12	1	0.2	35				46	50	8.8
13	4	0.8	19-30				47	66	15.6
14	7	1.0	18-25				11.3	19	19-38
15	3	0.6	23-27				55	32	9.3
16	55	20-34					17	1	14-35
17	4	0.9	25-26				15	5	1.0
18	15	2.7	16-29	D-71-14			22.7	6	32
19	66	22.7	21-31				3	1	0.5
20	3	0.9	29-32				7	1	32
23	20	5.4	20-38				8	6	1.7
24	1	0.3	29				16	1	0.2
25	1	0.1	25				17	11	2.6
26	3	0.9	25-32				18	36	10.4
28	5	1.8	29-33				19	31	7.9
29	8	2.0	22-31				26	24	5.0
31	1	0.5	31				27	1	0.2
32	1	0.6	33						30

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Prionotus evolans</i>--Cont.</u>									
Del-71-2	3	2	0.6	14-31	Del-71-3	26	1	0.1	13
	4	1	0.1	13		27	2	0.2	17-20
	5	1	+	12		37	4	0.2	14-17
	7	1	0.3	28		38	1	0.1	20
	5	1	0.2	26		43	2	0.5	21-25
	6	2	0.6	25-30		44	1	0.1	19
	7	4	0.2	10-24		54	2	+	7-11
	8	1	0.1	25		56	1	+	14
	9	2	0.3	20-28		57	1	0.1	20
	12	2	0.1	20-24	Del-72-8	45	2	0.1	15-19
	13	2	0.1	19-21	Del-72-15	39	1	0.1	16
	14	1	0.1	20		71	1	0.1	19
	32	1	0.1	24					
	49	1	0.2	27					
	53	1	0.5	32					
	58	20	2.9	11-32	D-71-11	19	1	0.7	*
	59	3	2.0	31-36		24	1	0.3	29
	61	2	0.5	28		28	4	0.9	28-30
	65	12	3.5	17-31		29	2	0.2	17
	67	4	1.2	10-35		30	1	0.5	30
	68	1	0.5	35	Del-71-3	30	3	0.6	19-32
	71	1	0.6	33		32	3	0.8	30-33
	72	1	0.5	33		33	1	0.2	32
	3	1	0.3	29		37	1	0.3	31
	9	7	2.9	27-36		44	4	0.9	20-31
	11	4	1.4	27-32		45	1	0.6	33
	25	1	0.2	29		55	2	0.7	32-36
	55	1	0.2	29		56	7	1.1	17-46
	69	3	1.4	28-33		57	2	0.8	31-33
	76	5	1.2	22-36	Del-72-8	7	1	0.1	18
	77	7	0.1	10-15			16	0.1	26

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		No.	Wt. (kg)	Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)			
<u><i>Prionotus salmonicolor</i>--Cont.</u>											
	18	9	0.6	14-19	D-69-29		1	1	*	25	
	29	1	+	20			3	1	*	15	
	30	1	0.3	33			6	16	*	10-21	
	31	3	0.8	26-31			7	10	*	12-22	
	32	4	1.4	26-32			8	7	*	10-21	
	37	1	0.1	17			9	18	*	9-20	
	39	1	0.1	17			10	15	*	9-20	
	40	3	+	8-12			11	42	*	9-20	
	43	3	1.2	29-34			12	3	*	12-14	
	44	2	0.2	19-26			13	3	*	6-25	
	45	3	1.1	28-33			14	13	*	10-20	
	68	2	0.7	24-31			15	1	*	13	
Del-72-15	8	1	0.2	27			16	3	*	10-11	
	9	5	1.7	27-33			17	2	*	8-11	
	11	2	0.5	28-30			18	2	*	10-17	
	33	5	1.6	27-33			19	3	*	22-23	
	37	1	0.2	18			26	1	*	12	
	41	2	0.3	17-32			27	*	*	*	
	42	2	0.6	16-29	D-71-3		12	1	+	12	
	45	7	2.7	24-33			13	2	+	12-13	
	46	1	0.5	30			14	2	+	9-14	
	47	6	1.4	21-32			17	6	0.2	6-24	
	48	3	0.9	19-33			25	4	0.3	19-20	
	49	1	0.1	25			26	2	0.1	20	
	55	4	0.9	21-31			27	10	0.1	7-10	
	69	1	0.2	26			28	1	+	8	
<u><i>Prionotus scitulus</i>, leopard searobin</u>											
D-69-23	8	1	*		D-71-11		30	3	+	4-6	
	10	1	*				31	6	0.3	14-19	
			*				19	16	0.8	15-23	
			*				20	5	0.2	17-21	

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Prionotus scitulus--Cont.</u>									
30	14	0.9		16-23			36	1	+
32	2	0.1		19			37	1	0.1
35	3	0.1		14-21			38	1	0.1
37	1	0.1		22			41	3	0.2
Del-71-3	9	1	0.1	18			43	2	0.1
18	1	0.1		22			44	1	0.1
20	1	0.1		18			53	2	0.2
21	3	0.2		14-20			62	6	0.5
22	6	0.1		11-20			72	9	0.6
23	1	+		11			73	3	0.3
23	1	0.2		15-19			73	3	0.3
25	4	0.2		15-19			9	1	0.1
27	4	0.3		18-26			11	1	0.1
35	1	0.1		14			19	2	0.2
36	1	+		17			27	2	0.2
43	5	1.3		20-26			28	4	0.2
46	2	0.1		18-20			42	6	0.3
47	8	0.3		16-20			55	11	0.8
48	1	0.1		17			61	8	0.3
50	2	0.1		21-22			67	1	+
51	3	0.3		19-25			68	2	0.2
52	2	0.1		19-22			75	3	0.2
53	4	0.2		15-22			77	6	0.2
54	16	0.5		12-15					9-19
59	1	0.1		19					
12	1	+		15					
13	1	+		13					
14	2	+		10-17					
15	8	0.1		8-21					
22	1	+		19					
24	2	0.1		19-22					
32	1	0.1		22					
33	2	+		11-18					
<u>Prionotus tribulus</u> , bighead searobin									
Del-72-8									
12					D-69-23		1	2	*
13							5	2	22-25
14							9	1	*
15							14	1	7
22							15	6	*
24							18	4	15-18

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)					
		No.	Wt. (kg)				No.	Wt. (kg)						
<u>Prionotus tribulus</u> --Cont.														
D-69-29														
6		*	1	11	D-69-15	67	1	*	13					
15		*	1	6	D-70-7	3	1	0.1	22					
16		*	2	25-32	D-70-16	4	1	0.1	27					
17		*	1	6	D-70-19	35	1	0.2	24					
24		*	5	6-8	D-71-14	12	1	+	6					
25		*	2	6-8					29					
26		*	3	11					17-25					
27		*	*	*										
34		1	0.3	35										
12		4	1.4	25-34										
13		3	0.6	26-31										
25		1	0.5	27	D-69-9	68	3	*	28-29					
28		2	0.6	21-33	D-69-25	5	6	*	15-25					
34		1	0.1	12	D-70-7	2	21	4.8	27-30					
52		1	0.2	23		3	4	0.5	26-27					
56		2	0.2	*				0.1	28					
57		1	0.5	33	D-70-16	4	1	0.1	28-29					
10		1	0.6	32	D-70-19	23	2	0.5						
24		2	0.5	24		26	1	0.1	28					
45		1	0.6	33		27	1	0.2						
54		1	0.1	20	D-71-3	37	1	0.2	26					
62		1	0.5	32		40	1	0.2	29					
65		3	1.2	30		41	3	0.9	23-29					
67		1	0.2	25	D-71-14	4	21	0.8	27-28					
						5	15	2.2	13-27					
							1	1.7	11-28					
<u>Prionotus</u> sp.														
D-72-8														
46		1	0.1				10	1	31					
							11	2	16-17					
							12	1	15					
							14	1	15					
							20	5	16-18					
							30	1	25					

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Myoxocephalus octodecemspinosus</i>--Cont.</u>									
		31	1	0.1	15	D-71-11	17	1	+
		32	14	2.3	13-27		18	2	0.1
		33	11	1.8	12-29		19	3	0.1
Del-71-2	8		1	0.1	26		23	1	0.5
							25	1	0.2
							25	1	0.2
							28	2	0.2
							29	2	0.1
							30	2	0.1
							31	8	0.7
							32	3	0.8
							34	3	0.2
							35	2	0.2
							36	1	0.1
							40	1	0.1
							20	1	0.2
							21	2	0.2
							23	1	0.1
							24	1	0.1
							26	2	0.2
							27	3	0.3
							28	2	0.6
							29	2	1.4
							43	2	0.1
							44	1	0.1
							47	1	0.1
							51	1	0.1
							52	1	0.1
							53	1	0.2
							7	2	+
							15	1	0.1
							16	1	0.1
							8	1	0.5
							11	1	
							25	1	
							31	1	
							33	1	

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Ancylosetta quadrocellata</u> --Cont.									
30	2	0.5	25-32	Del-71-3	20	1	0.1	14	
37	1	0.2	24		26	1	+	14	
38	4	0.9	22-27		29	3	0.1	15-16	
41	1	0.2	28		37	3	0.1	14	
43	1	0.2	26		43	2	0.1	16-19	
45	2	0.9	27-29		47	1	+	10	
46	1	0.2	26		52	1	+	15	
51	1	0.6	36		18	7	0.2	10-15	
53	5	0.8	20-27		26	2	0.1	13-16	
54	2	0.1	18-20		29	2	0.1	14-15	
68	2	0.4	23-28		38	11	0.5	12-16	
9	1	0.3	28		46	23	1.1	14-17	
11	2	0.2	22		54	1	+	10	
15	1	0.2	24	Del-72-15	23	1	0.1	13	
21	1	0.5	28		31	24	1.6	13-18	
24	1	0.1	24		32	2	0.1	15-17	
27	2	0.6	25-29		40	6	0.2	14-16	
33	1	0.3	30		49	20	1.0	14-16	
37	1	+	13		64	4	0.1	10-13	
41	2	0.5	21-28						
42	1	0.1	20						
47	1	0.7	33						
52	1	0.1	23	Del-71-3	53	2	0.1	13	
55	1	0.2	22	Del-72-8	7	1	+	14	
57	1	0.1	14		17	1	0.1	16	
59	1	+	10		25	2	+	10-17	
60	6	0.8	12-29		26	5	0.5	17-19	
61	6	0.9	20-26		38	4	0.1	14-17	
62	1	0.3	31		43	1	+	12	
67	1	0.3	30		44	1	+	11	
68	2	0.6	31-38		45	5	0.2	11-17	

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<i>Bothus robinsi</i> --Cont.									
46	5	0.5	16-18	36		1	+	12	
54	1	+	17	39		1	+	11	
31	1	+	19	6	D-70-19	1	+	12	
32	7	0.5	11-18	9		2	0.1	11	
40	8	0.5	15-16	10		4	0.1	8-11	
47	1	+	16	12		12	0.1	7-11	
52	1	0.1	19	13		1	+	12	
53	1	+	15	17		1	+	10	
63	2	+	15-17	23		2	0.1	10-15	
64	1	+	13	24		5	0.1	10-14	
				26		1	+	10	
<i>Citharichthys arctifrons</i> --Cont.									
D-69-15	11	*	14-16	30	D-71-3	21	0.1	5-13	
18	2	*	13-14	30	D-71-11	6	0.2	14	
20	1	*	*	7		1	+	12	
22	2	*	14	11		2	0.1	9-14	
24	1	*	9	45		1	+	13	
39	1	*	15	48		13	0.5	10-15	
41	40	*	9-12	11	D-71-14	1	+	11	
58	1	*	15	13		1	+	11	
D-69-21	1	1	*	14		1	+	13	
D-70-16	5	1	+	14		1	+	12	
6	2	+	10-11	27		1	+	12	
10	9	0.1	9-12	31		1	+	16	
11	8	0.1	6-11	33		1	+	13	
12	1	0.1	19	63	Del-72-8	2	1	9	
21	1	+	11	19		63	1	7	
22	2	+	11	21	Del-72-15	5	1	7	
24	2	+	10	22		65	1	10	
25	1	+	10-12	24		9			

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Citharichthys macrops, spotted whiff</u>									
D-69-9	19	1	*	7-20	D-69-29	1	1	*	10
D-69-29	10	6	*	7-13	Del-71-3	18	3	0.3	20-27
	11	9	*	5-9		27	3	1.2	28-40
	12	2	*	11-12		28	1	0.1	25
	13	2	*	2		44	2	0.9	29-30
	16	2	*	9-13		50	7	1.4	21-29
	17	2	*	9-12		51	2	0.3	17-24
	18	1	*	11		52	1	0.1	22
	19	2	*	10-12		55	2	0.5	25-30
D-71-3	18	1	0.1	14		56	2	0.5	19-28
	29	1	+	11	Del-72-8	17	1	0.2	35
D-71-11	19	1	+	15		18	2	0.2	21
	25	1	+	15		26	2	0.6	28-34
	28	4	0.2	15-16		27	1	0.1	22
	30	1	+	14		46	2	0.2	22-26
Del-71-3	26	2	0.1	14-18		53	2	0.6	26-32
	33	1	+	13	Del-72-15	15	1	0.2	26
	43	1	+	18		31	4	0.8	24-27
Del-72-8	25	1	0.1	19		33	1	0.2	28
	26	1	0.1	16		52	2	0.2	25-26
	37	1	+	16		62	2	0.5	28-29
	38	1	+	16		63	6	1.1	24-32
	51	1	+	14		64	1	0.6	37
	62	1	0.1	21		70	1	0.4	32
Del-72-15	27	1	+	15					
	41	2	0.1	16					
	42	3	0.1	11-15					
	48	1	0.1	20	D-68-13	2	1	*	8
	63	1	+	19	D-69-9	5	1	*	7
					D-69-23	1	1	*	*
						11	9	*	9-12

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Etropus</i> sp.--Cont.</u>									
16	5	*		8-12	D-71-11	18	1	+	9
22	1	*	10			25	6	0.2	13-16
24	3	*	*			28	1	+	13
25	1	*		11		29	2	0.1	13-15
28	2	*		11		34	2	0.1	12-13
32	1	*		11		49	1	+	9
D-69-29	6	3	*	6-9	Del-71-3	7	1	0.1	15
7	1	*	8			22	1	+	8
8	7	*		8-10		36	6	0.1	5-11
9	7	*		8-10		55	1	+	8
10	7	*		6-14	Del-72-8	16	1	+	13
11	4	*		9-11		39	6	0.1	10-11
12	3	*		8-10		47	1	+	11
13	4	*		8-11	Del-72-15	29	1	+	5
14	1	*		10		30	2	+	8
15	1	*		10		41	2	+	13
16	1	*		9		42	2	0.1	14-15
17	1	*		7					
18	2	*		7					
19	3	*		6-8					
24	1	*	7		Del-71-3	18	1	0.1	17
27	2	*		7-9	Del-72-8	18	1	0.2	22
D-71-3	1	6		2-8		26	4	0.5	19-23
4	1			17		46	4	0.6	22-23
25	7			4-5					
27	3			4					
32	5			5-6					
33	1			+					
36	7			12	D-69-15	57	2	*	11-14
39	0.1			4-5		59	1	*	11
40	3			4-8	D-69-23	9	1	*	12
41	1			5-8	D-71-3	14	1	0.3	36

Cruise	Stn.	Paralichthys <u>alboguttatus</u> --Cont.		Range (cm)	Cruise	Stn.	Paralichthys <u>dentatus</u> --Cont.	
		No.	Wt.(kg)				No.	Wt.(kg)
<u>Paralichthys <u>dentatus</u>, summer flounder</u>								
D-71-11	17	2	0.2	12-26		23	2	1.8
	28	1	0.1			24	3	1.4
Del-71-3	7	1	0.1	18		26	5	*
	56	3	1.6	32-36		29	4	1.8
	57	1	0.5			30	4	2.3
	58	1	0.9	40		31	8	*
	59	1	1.0			32	10	4.5
Del-72-8.	11	1	0.5			33	4	7.3
	16	3	*	25-33		33	4	2.7
	42	1	0.6			40	1	*
	55	4	3.3	35-41		46	1	0.9
	64	5	0.9	18-36		51	2	*
	65	1	0.3			53	3	1.4
	66	2	0.7	29-33		54	6	*
Del-72-15	30	1	0.3			55	24	*
	67	1	0.2	29		51	2	*
	68	3	1.2	30		53	3	*
	69	4	1.2	30-35		54	1	*
	70	1	0.3	28		55	1	*
	73	1	0.2	28		56	10	*
						57	5	18-42
						58	5	45
						59	1	18-33
						60	2	*
D-68-7	1	1	*			61	1	*
	14	1	*			62	1	*
	18	1	*			63	1	*
D-68-13	1	3	*	29-42		64	14	*
	3	1	0.5			65	18	17-20
	4	18	8.2	27-33		66	12	*
	6	17	*			67	20	*
	7	4	*			68	1	*
	8	3	*			69	6	*
						70	9	*
						71	22	*
						72	1	*
						73	24	*
						74	1	*
						75	25	*

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Paralichthys dentatus</i>--Cont.</u>									
26		*		18			25	8	*
30	2	*					26	1	*
32	5	*					27	1	*
35	1	*					30	1	*
36	24	*					38	2	*
38	5	*					40	1	*
39	1	*					41	2	40-42
41	*	*					44	2	*
42	4	*					45	1	*
43	7	*					47	4	*
44	7	*					48	3	32-42
45	5	*					56	1	*
46	8	*					57	3	54
47	6	*					58	2	34-47
50	5	*					59	7	34-41
51	7	*					60	3	30-47
52	1	*					61	5	41-59
53	2	*					62	1	*
54	3	*					68	3	*
57	3	*					70	11	*
58	1	*					1	1	34-56
62	6	*					2	10	47
63	10	*					3	2	35-56
64	1	*					15	2	30-37
66	1	*					38	5	*
67	1	*					3	3	33
68	2	*					4	6	*
10	4	*					5	1	*
13	3	*					7	3	29
14	2	2.3					9	5	*
22	2	*					10	13	16-19
23	2	*					11	44	15-29
D-69-15							12	40	24-30
D-69-21									
D-69-23									
41-63									

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Paralichthys dentatus</i>--Cont.</u>									
	14	2	*	22-23		18	3	*	*
	15	2	*	21-22		19	1	*	*
	16	17	*	16-21		20	1	*	19
	17	1	*	*		21	3	*	23-45
	18	5	*	*		22	1	*	24
	19	3	*	31		24	2	*	15-19
	21	*	*	*		25	4	*	15-43
	22	*	*	*		26	1	*	32
	23	5	*	25-34		27	4	*	22-52
	24	7	*	21-46	D-70-16	1	1	0.9	46
	25	1	*	38		2	1	0.9	45
	26	1	*	33		5	3	1.8	29-60
	27	12	*	*		6	9	6.8	30-43
	29	*	*	*		7	2	0.5	30-34
	31	1	*	45		9	11	5.4	27-49
	32	4	*	33-35		10	6	3.6	29-42
	35	1	*	*		11	2	1.1	30-39
	39	1	*	*		13	2	1.6	34-36
	45	4	*	52		14	2	1.6	41
D-69-25	2	4	*	*		15	4	2.7	31-37
	5	4	*	54-68		16	2	1.8	34-41
	6	1	*	72		17	3	2.3	39-47
	9	2	*	*		18	3	2.7	34-40
	10	1	*	*		21	3	2.3	38-42
D-69-29	11	1	*	58		34	5	10.2	46-62
	7	3	*	22-33		36	1	0.9	36
	8	1	*	*		39	1	0.9	42
	9	2	*	36-37	D-70-19	2	4	9.5	49-64
	10	1	*	38		5	6	5.4	34-58
	11	1	*	36		6	19	6.4	29-53
	16	*	*	*		8	1	1.1	47
	17	4	*	*		23	5	0.9	29-40

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	cruise	Stn.	No.	Catch		Range (cm)
		No.	Wt. (kg)					Wt. (kg)	No.	
<u><i>Paralichthys dentatus</i>--Cont.</u>										
10	3	3.4	38-61	14		1	0.7	42		
13	1	2.3	58	17		8	0.7	13-29		
16	4	2.0	34-37	18		3	0.1	14-21		
17	1	0.7	37	19		6	1.0	24-27		
18	3	2.3	34-47	20		1	0.5	28		
19	11	8.6	35-46	23		2	0.1	23-38		
23	3	3.4	39-42	24		4	1.1	24-33		
29	1	3.3	65	31		1	0.3	32		
39	3	6.8	56-60	34		2	0.7	26-31		
40	4	5.0	44-54	39		1	0.2	27		
	3	1	0.5	38		40	1	0.2	30	
D-71-3	4	1	0.1	28		41	1	0.3	35	
	7	4	2.4	28-45		42	1	0.1	27	
	8	3	1.6	29-44		43	16	6.6	25-45	
	10	1	1.0	46		46	9	6.4	31-47	
	15	2	+ 17-20	47		47	12	11.6	33-63	
	16	1	0.2	27		48	1	1.8	54	
	18	5	2.0	31-37	D-71-14	1	2	2.4	42-44	
	28	1	0.3	28		6	16	10.0	34-47	
	29	1	0.2	27		8	4	2.7	37-44	
	31	1	0.5	40		18	14	8.2	17-61	
	32	1	0.1	24		19	32	28.6	20-63	
	33	1	0.1	27		26	8	6.1	37-51	
	36	1	0.1	21		5	1	2.0	54	
	39	2	1.6	38-45		6	1	0.5	34	
D-71-11	4	11	14.3	39-55		7	2	2.7	37-78	
	5	1	0.3	33		8	1	0.7	40	
	6	4	2.9	36-48	Del-71-3	1	4	0.8	27-29	
	7	5	3.2	37-46		2	4	4.2	23-51	
	8	14	8.6	33-48		3	2	0.5	25-28	
	10	8	5.0	33-51		4	5	4.3	32-53	
	13	1	0.1	18		5	4	1.8	27-43	

## Appendix Table 2.--Continued.

Cruise	Stn.	No.	Catch		Range (cm)	Cruise	Stn.	No.	Catch		Range (cm)
			Wt. (kg)	No.					Wt. (kg)	No.	
<u><i>Paralichthys dentatus</i>--Cont.</u>											
6	7	14	5.0	7	34-50			64	3	0.2	17-19
7	12	2	2.7	18-46			65	3	0.2	17-20	
14	14	2	0.7	28-33			68	5	2.9	33-39	
15	15	1	0.2	27-32			71	4	2.7	26-47	
22	22	5	1.4	30			72	13	3.2	21-42	
39	39	1	0.3	26-35			73	4	0.7	25-30	
44	44	1	0.4	34		Del-72-15	1	1	0.1	28	
45	45	1	0.4	30			8	1	0.3	35	
47	47	1	0.1	33			9	1	0.1	22	
49	49	2	0.6	27			17	1	0.5	34	
51	51	1	0.3	29-31			18	1	0.1	28	
52	52	1	0.3	31			21	1	0.7	38	
54	54	1	0.3	33			25	1	0.5	35	
56	56	1	0.2	29			45	1	0.2	26	
58	58	5	2.3	25			53	1	0.2	30	
59	59	5	2.4	16-49			59	1	0.1	22	
60	60	3	0.7	27-42			61	2	0.3	26-27	
61	61	21	5.0	23-34			62	4	1.1	28-31	
62	62	10	5.2	25-44			66	1	0.5	35	
65	65	1	0.3	22-44			67	3	1.4	31-41	
66	66	2	0.8	31-34			68	1	0.5	31	
67	67	9	3.2	28-41			69	1	0.3	31	
68	68	7	4.4	30-47			70	1	0.5	31	
		1	0.5	15-17			77	2	0.6	22-34	
<u><i>Paralichthys lethostigma</i>, southern flounder</u>											
3	2	4	1.1	28-30		D-71-3	1.3	1	4.0	69	
4	3	5.4	24-41				26-28	22	0.5	31	
17	17	3	0.7	29-31			0.6	28	0.3	27	
52	52	3	0.9	29-33			44	35	2.3	28-42	
58	58	1	0.7	44			4	4	2.3		
62	62	3	0.7	24-29							

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Paralichthys lethostigma--Cont.</u>									
Del-71-3	7	1	0.5	37		30	45	*	21-32
	33	1	1.1	44		31	10	*	17-28
	35	1	0.1	28		32	7	*	23-29
	54	1	0.5	36		33	3	0.3	24-29
	56	1	0.3	32		34	4	*	20-26
	57	1	0.5	34		35	5	*	*
Del-72-8	34	1	0.7	29		49	7	*	21-31
	35	*	*	*		50	5	*	24-27
	64	1	0.5	31		51	1	*	25
Del-72-15	20	1	0.5	34		52	2	*	21-22
	43	1	0.7	42		53	2	*	21-26
	68	1	0.3	33		54	16	*	23-34
						55	16	*	20-30
<u>Hippoglossina oblongus, fourspot flounder</u> (see: Gutierrez, 1967)									
D-68-7	21	1	*	24		65	1	*	28
	22	3	*	30-34		66	1	*	22
D-69-9	60	1	*	20	D-69-25	67	6	*	22-32
D-69-15	7	29	*	18-34		5	18	*	15-38
	8	27	*	21-35		6	3	*	12-15
	9	9	*	11-34	D-70-16	3	3	0.5	24-28
	15	2	*	23-24		4	2	0.7	32-34
	16	9	*	26-34		22	1	0.1	26
	17	1	*	33		23	1	0.2	31
	18	9	*	19-24		24	11	2.0	24-33
	19	11	*	17-35		25	14	2.4	19-32
	20	28	*	16-36		26	2	0.3	24-28
	21	22	*	19-33		31	2	0.3	25-26
	23	1	*	19-33	D-70-19	32	1	0.1	25
	29	8	*	22-30		4	1	0.2	33
						25	2	0.6	28-35

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Hippoglossina oblongus</u> --Cont.									
		26	10	1.6	24-32	Del-72-15	38	2	0.9
		27	16	2.5	23-34				29-35
D-71-11	35	1	0.1	23					
	6	1	0.1	33					
	16	1	0.1	17	D-68-7		1	*	28
	44	40	6.6	18-34			3	*	24-34
	49	12	1.6	16-32			4	*	25
D-71-14	2	2	0.1	21-23			8	1	*
	3	3	0.1	19-24			9	1	*
	4	3	0.5	27-31			10	2	*
	5	4	0.6	24-34			12	*	*
	9	3	0.6	21-32			13	5	*
	10	2	0.2	20-24			14	17	15-31
	11	7	0.8	15-32			15	2	17-27
	12	8	0.9	21-28			19	3	23-24
	13	11	1.1	18-26			22	1	21-25
	14	20	2.0	18-36			23	1	32
	15	6	0.5	16-27	D-68-13		15	1	26
	20	17	2.5	20-34			31	*	*
	21	4	0.3	23-31			55	*	*
	22	19	2.0	15-30	D-69-9		1	2	19-22
	30	1	0.1	25			2	1	28
	32	1	0.1	29			3	4	*
	33	9	1.1	19-29			4	7	*
	7	2	0.2	22-25			5	15	21-25
Del-71-2	8	9	1.0	21-28			7	*	*
Del-71-3	6	4	0.1	18-20			8	1	*
Del-72-8	64	5	0.2	16-23			18	1	*
	5	2	0.2	19-22			27	1	*
	6	14	1.1	21-25			46	2	*
	55	2	0.2	22-25			47	2	*
Del-72-15	5	4	0.2	20-23			48	5	*

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Scophthalmus aquosus</i>--Cont.</u>									
D-69-15									
51	5	*					32	12	22-28
62	10	*	*				33	22	23-31
63	2	*	*				34	15	19-28
64	4	*	*				35	14	*
65	17	*		19-29			36	9	13-26
66	15	*		21-29			37	25	14-28
68	6	*		22-26			38	12	16-27
7	11	*		21-28			39	15	21-25
8	52	*		19-29			40	18	17-25
9	34	*		21-27			41	60	12-30
10	13	*		21-26			42	32	14-27
11	3	*		22-23			43	9	13-29
12	3	*		22			44	3	22-25
13	12	*		14-25			46	11	15-28
14	9	*		21-25			47	8	*
15	7	*		21-30			48	18	
16	13	*		22-30			49	23	
17	4	*		22-23			50	26	
18	1	*		22			51	2	
19	7	*		21-25			52	7	
20	38	*		20-27			53	1	
21	59	*		23-29			54	10	
22	11	*		20-25			55	28	
23	28	*		20-28			56	80	
24	44	*		16-27			57	14	
25	42	*		12-26			58	9	
26	3	*		23-27			59	13	
27	2	*		22-23			60	38	
28	3	*		23-26			61	10	
29	15	*		21-29			62	5	
30	25	*		22-31			63	11	
31	7	*		22-27			64	14	

## Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch		Range (cm)
		No.	Wt. (kg)					Wt. (kg)	No.	
<u><i>Scophthalmus aquosus</i>--Cont.</u>										
D-69-21	65	2	*	29-31		43	30	*		20-26
	66	2	*	23-24		44	16	*		*
	67	4	*	22-29		45	23	*		13-31
	68	4	*	22-25	D-69-25	1	12	*		17-29
	69	9	*	23-28		2	8	*		19-30
	70	*	38.1	18-33		3	2	*		*
D-69-21	1	6	*	22-26		4	1	*		22
	2	1	*	24		5	36	*		23-34
	3	20	*	18-29		6	15	*		23-32
	4	3	*	21-22		7	28	*		11-28
D-69-23	4	1	*	19		8	62	*		15-25
	10	2	*	14		9	37	*		13-15
	11	1	*	17		10	6	*		12-24
	12	6	*			11	6	*		17-23
	16	6	*	16-18		12	*	*		*
	17	1	*	23		13	42	*		14-19
	18	2	*	18-19		6	5	*		14-16
	20	2	*	18-19		7	4	*		13-15
	21	8	*	18-24		8	2	*		15-18
	22	9	*	19-24		9	1	*		14
	23	8	*	16-24		11	1	*		11
	25	6	*	17-18		12	1	*		20
	27	20	*	15-20		13	1	*		14
	29	1	*	29		18	5	*		16-25
	31	24	*	18-24		23	1	*		19
	32	7	*	14-25		24	1	*		21
	34	1	*	19		27	1	*		20
	35	18	*	16-21	D-70-7	1	46	10.7		21-30
	39	1	*	18		2	25	6.4		25-30
	40	5	*	22-26		3	35	9.5		21-32
	41	3	*	19-26		4	10	2.0		24-29
				10-19						

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Wt. (kg)	Catch	No.	Wt. (kg)	Range (cm)
		No.	Wt. (kg)									
<u><i>Scophthalmus aquosus</i>--Cont.</u>												
D-70-16	1	35	10.0	18-31			34	186	60.3	12-31		
	2	16	3.9	13-29			35	27	8.6	11-36		
	3	11	2.9	15-30			36	75	13.6	12-31		
	4	11	2.8	24-29			37	4	1.0	22-28		
	5	8	0.1	9-13			38	3	0.8	25-27		
	6	13	0.9	8-29			39	53	9.3	11-33		
	7	7	1.5	18-27	D-70-19		1	40	5.0	14-32		
	8	1	0.1	23			2	3	0.3	17-26		
	9	12	0.7	13-31			3	3	0.7	12-28		
	10	11	0.8	12-26			4	1	0.2	27		
	11	20	2.7	14-30			5	4	0.5	16-27		
	12	16	3.4	24-26			6	18	2.4	14-29		
	13	37	5.7	21-27			9	17	1.7	14-30		
	14	18	3.2	13-28			10	11	1.4	12-29		
	15	97	14.7	12-29			11	5	0.2	12-16		
	16	75	7.7	10-27			12	7	0.3	14-18		
	17	42	8.8	10-30			13	30	4.1	13-27		
	18	35	7.7	9-29			14	83	9.3	15-28		
	19	22	5.4	11-31			15	17	1.0	13-26		
	21	200	15.4	9-28			16	198	19.1	13-25		
	22	10	1.9	10-30			17	60	5.7	14-19		
	23	41	10.0	11-30			18	48	3.4	13-22		
	24	30	6.8	15-29			19	8	0.3	14-17		
	25	37	6.4	21-28			20	9	1.4	14-27		
	26	48	11.6	11-22			21	1	+	14		
	27	15	2.7	23-28			22	2	0.5	24-26		
	28	17	3.2	12-28			23	99	18.6	15-32		
	29	19	3.6	19-31			24	130	29.5	13-28		
	30	11	2.9	24-30			25	19	2.9	12-29		
	31	15	4.0	24-31			26	33	6.4	12-29		
	32	5	1.5	26-29			27	16	3.6	12-30		
	33	7	1.8	23-31			28	17	2.8	10-29		

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Scophthalmus aquosus</i>--Cont.</u>									
29	45	9.2	16-30	10		9	0.7	13-28	
30	11	1.4	15-26	11		1	0.2	25	
31	37	9.1	22-30	12		2	0.3	22-27	
32	169	34.5	17-28	13		5	0.1	13-14	
33	20	5.0	17-29	15		1	0.1	23	
34	24	6.8	23-32	17		4	0.1	13-15	
35	6	1.2	23-26	21		1	+	12	
36	69	17.2	23-31	31		1	+	12	
37	5	1.7	24-32	42		4	0.2	15-17	
38	5	2.4	22-27	43		55	3.1	12-18	
39	31	7.7	17-32	44		14	2.3	17-28	
40	55	10.0	15-30	45		1	+	16	
D-71-3	1	62	12.2	5-30		46	2	14-18	
	2	4	0.8	23-28		47	8	0.6	15-18
	3	6	0.7	8-28		48	18	2.7	13-28
	4	4	+	6-11		1	8	1.7	10-30
	13	2	+	10-18		2	2	0.1	19-26
	15	2	+	9-15		3	5	1.4	22-30
	16	2	0.1	9-16		4	1	0.1	24
	17	2	+	8-10		6	49	5.0	14-22
	36	4	0.1	8-17		7	6	0.5	15-20
	38	1	+	5		8	3	0.1	19-23
	40	47	9.1	21-28		9	10	2.4	22-29
	41	20	5.4	21-40		10	2	0.5	24-28
D-71-11	2	4	0.8	23-27		11	2	0.3	16-17
	3	8	1.8	23-28		12	1	0.1	25
	4	27	5.7	20-30		13	1	0.2	26
	5	37	5.4	14-27		14	7	1.5	22-29
	6	16	3.2	22-29		16	4	0.5	17-23
	7	19	2.3	14-25		17	1.9	17-28	
	8	73	9.8	13-30		18	9	0.8	16-28
	9	2	0.3	14-29		19	1	0.1	26

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Scophthalmus aquosus</i>--Cont.</u>									
21	2	0.2	24-26			66	16	3.7	22-32
22	3	0.5	21-25			67	20	3.7	21-26
23	2	0.3	25			68	11	1.9	21-26
24	3	0.6	19-27	Del-72-8	1	4	0.9	23-27	
25	1	0.1	15			2	8	0.3	23-25
26	18	1.8	12-28			3	1	0.1	26
27	46	11.8	24-30			11	2	0.2	19-22
28	1	0.1	23			12	1	0.1	21
29	1	0.1	22			15	1	+	17
30	1	0.2	26			64	1	0.1	19
31	3	0.6	22-26	Del-72-15	1	1	+	12	
34	3	0.3	21-27			36	1	0.1	20
	1	2	0.5	29		59	1	+	11
2	1	0.2	30			60	6	0.3	11-19
3	8	1.5	22-27			61	1	0.1	18
4	36	6.1	17-30			66	1	+	13
5	5	1.0	22-27			68	4	0.5	19-21
6	8	1.6	21-28			77	1	+	14
7	1	0.2	26						
1	3	0.2	20-25	Syacium micrum, channel flounder					
3	5	1	0.1	D-71-3	34	1	0.2	26	
6	2	0.3	23-26						
13	2	0.1	20-22	Syacium papillosum, dusky flounder					
21	4	0.2	15-18	D-69-23	14	1	*	*	
53	3	0.1	14-15			16	2	*	12-13
58	1	0.1	25			7	1	*	29
59	3	0.3	20-24	D-69-29	31	32	0.6	11-26	
61	11	1.4	18-25	D-71-3	20	32	0.1	14	
62	1	0.1	23-28			33	9	0.8	15-27
65	11	2.5							

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Syacium papillosum--Cont.</u>									
D-71-11	28	2	0.3	22		32	2	0.1	17-22
	32	3	0.2	16-20		36	1	+	15
	35	1	0.1	19		37	2	0.4	14-26
Del-71-3	18	2	0.2	23-31		38	2	0.5	23-24
	27	4	0.7	20-31		39	15	0.5	12-23
	29	4	2.2	20-29		41	1	0.2	28
	30	1	0.1	25		43	2	0.5	28
	32	1	+	21		44	8	1.7	12-32
	36	40	1.6	10-21		45	2	0.3	27-28
	37	27	1.9	12-25		46	8	1.1	20-26
	38	5	0.9	21-29		53	2	0.8	26-31
	39	3	0.5	20-25		54	4	0.5	19-28
	40	1	0.1	22		62	1	0.3	32
	43	9	1.6	20-29		63	1	0.2	24
	44	4	0.6	18-26		69	3	0.5	25
	45	3	0.5	23-24		74	3	0.5	21-30
	46	2	0.2	14-27		11	10	2.0	20-31
	47	5	0.7	19-26		24	1	0.5	34
	49	2	0.5	28		31	21	4.1	23-31
	50	4	0.6	22-24		33	7	2.0	27-35
	51	2	0.2	12-13		36	2	0.1	15-21
	56	3	0.8	30-45		39	16	0.8	11-22
	57	1	0.2	25		40	7	1.1	20-28
Del-72-8	7	8	1.1	21-27		41	11	0.9	13-22
	17	1	0.2	15		42	17	1.4	17-21
	18	27	4.3	19-30		45	2	0.1	6-18
	25	3	0.3	14-28		47	3	0.5	17-28
	26	5	0.9	20-30		48	3	0.6	24-26
	27	8	0.6	7-27		49	4	0.6	16-25
	29	2	0.2	20-31		52	5	1.0	23-31
	30	4	0.7	21-31		53	4	1.4	28-34
	31	1	0.1	16		55	1	+	16

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Syacium papillosum</i>--Cont.</u>									
56	1	0.1	17			37	1	+	14
57	1	0.1	18			38	3	0.5	15-26
61	2	0.1	13-14	D-70-19		27	3	0.2	13-14
63	6	1.4	16-28			37	6	0.1	12-14
64	16	2.7	11-29			38	1	+	15
65	1	0.2	29	D-71-14		4	72	12.5	14-35
72	1	+	8			5	29	2.7	14-35
74	3	0.5	22-23			11	12	0.7	16-19
<u><i>Limanda ferruginea</i>--Cont.</u>									
D-69-9	68	5	*	27-46		21	8	0.5	14-20
	69	3	*	22-23		22	2	0.1	15-18
D-69-15	7	28	*	10-16		30	2	0.1	16-25
	18	1	*	25		31	17	1.4	13-36
	22	1	*	12		32	9	0.8	15-27
	32	1	*	23		33	58	7.5	13-33
	54	1	*	15	D-71-2	8	11	0.9	16-27
	55	3	*	11					
	66	2	*	12-14					
	67	2	*	11-14					
D-69-25	5	59	*	24-33	D-68-7	1	1	*	*
	6	1	*	23		4	35	*	11-39
D-70-7	1	15	6.1	28-37		5	1	*	*
	2	8	2.9	25-39		9	3	*	21-34
	3	17	6.8	30-46		10	1	*	*
D-70-16	2	1	0.1	15		12	2	*	*
	4	2	0.6	29-35		13	2	*	19-23
	20	1	+	12		14	15	*	17-29
	24	10	0.2	9-13		15	12	*	21-30
	25	15	0.3	11-15		17	1	*	28

## Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Pseudopleuronectes americanus--Cont.</u>									
D-69-15	19	2	*	26-32		46	1	*	17
	20	1	*	25		48	2	*	15-18
	21	1	*	20		49	1	*	18
	22	4	*	25-28		50	2	*	21-22
	23	3	*	28-32		51	8	*	17-28
	64	1	*	*		52	2	*	22-23
	65	32	*	21-36		54	9	*	19-29
	66	117	49.9	16-40		55	10	*	19-30
	68	12	*	*		56	3	*	16-22
	69	12	*	15-35		57	1	*	32
	7	2	*	17-28		58	1	*	31
	8	2	*	21-31		59	1	*	16
	9	2	*	19-20		60	2	*	12-20
	15	10	*	16-26		61	5	*	15-25
	16	18	*	17-28		62	3	*	18-33
	17	3	*	17-25		63	2	*	17-31
	18	23	*	18-30		64	17	*	17-31
	19	12	*	15-28		65	4	*	24-27
	20	6	*	21-29		66	6	*	16-32
	21	3	*	18-24		67	16	*	18-28
	22	2	*	22-29		68	2	*	20
	23	1	*	17		69	4	*	20-29
	30	69	*	16-29		70	9	*	11-26
	31	10	*	17-25	D-69-23	43	1	*	17
	32	15	*	17-28		44	1	*	22
	33	13	*	16-28	D-69-25	1	3	*	16-20
	34	5	*	18-22		4	5	*	25-29
	35	1	*	*		5	7	*	24-29
	36	1	*	27		7	25	*	20-30
	42	1	*	18		8	1	*	28
	43	1	*	25		12	1	*	*
	44	2	*	17-19	D-69-29	4	4	*	6-7

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Pseudopleuronectes americanus--Cont.</u>									
D-70-7	1	38	10.9	17-34		13	1	0.1	21
	2	125	31.8	12-36		16	1	0.1	21
	3	9	2.9	13-31		20	4	0.6	21-25
	4	4	1.4	26-37		21	1	0.1	19
D-70-16	2	8	2.0	24-32		22	2	0.3	20-22
	3	34	8.2	15-35		23	5	0.9	19-27
	4	49	6.8	15-33		24	143	19.5	15-28
	12	2	0.2	19-21		25	8	1.1	12-26
	16	1	0.1	18		26	4	0.7	19-28
	17	1	0.1	17		27	5	1.0	17-30
	19	18	2.3	16-26		28	10	1.4	17-28
	22	7	1.2	16-28		29	9	1.5	18-29
	23	17	2.3	15-29		30	5	1.5	18-32
	24	9	1.5	15-25		31	18	3.2	15-32
	25	1	0.2	26		32	18	3.6	17-35
	26	14	2.0	16-25		33	15	2.3	19-30
	27	25	1.4	14-25		34	3	0.5	21-23
	28	4	0.6	17-25		35	5	0.9	16-29
	29	8	1.1	14-27		36	7	0.9	13-26
	30	9	2.2	19-36		37	3	0.9	16-31
	31	12	2.6	16-36		39	4	0.5	18-22
	32	4	0.8	22-26		40	4	0.5	19-24
	33	1	0.3	27	D-71-11	1	1	0.1	26
	34	6	1.1	15-28		2	1	0.5	34
	35	92	22.7	14-31		40	7	1.0	21-27
	36	2	0.2	18-21		41	5	1.1	14-35
	37	21	3.9	12-36	D-71-11	1	2	0.1	14-21
	38	3	0.7	15-26		2	3	0.5	20-22
	39	2	0.3	19-22		3	5	0.5	17-24
D-70-19	2	6	0.7	18-22		4	6	1.0	19-27
	3	1	0.2	27		27	2	0.2	22-24
	4	3	0.6	21-27					

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u>Pseudopleuronectes americanus--Cont.</u>									
D-71-14	3	6	1.6	24-31	Del-71-3	26	1	0.1	15
	4	43	7.6	17-31		51	1	+	14
	5	6	1.7	19-34		55	1	0.1	16
	10	1	0.1	23					
	11	6	0.9	17-25	Del-72-8	38	1	0.1	16
	13	1	0.2	26		46	2	0.3	16-17
	15	2	0.5	24-27	Del-72-15	31	1	0.1	15
	19	1	0.1	28		40	2	0.1	14-15
	20	2	0.7	30-33		71	1	0.1	16
	21	1	0.2	29		72	1	0.1	19
	22	2	0.3	26					
	23	2	0.9	30					
	24	2	0.5	19-30					
	28	4	0.6	17-25	D-69-23	27	2	*	*
	29	4	0.9	19-30	D-69-29	11	1	*	13
	30	1	0.1	30		15	10	*	11-15
	31	3	0.5	16-27		16	2	*	13-15
	32	7	1.4	19-28		20	1	*	11
	33	5	1.1	21-30	D-70-19	16	4	0.5	14-18
	34	3	0.5	20-22		18	13	1.6	15-18
	35	1	0.1	22	D-71-3	29	18	0.8	10-15
	3	8	1.5	20-29		30	1	+	11
	4	2	0.5	27-33		31	1	+	12
	5	8	1.8	20-30		32	31	1.1	9-14
	6	16	3.5	18-32		33	11	0.3	11-14
	7	1	0.1	21	D-71-11	8	7	0.7	13-18
	8	12	3.2	21-33		27	1	0.1	13
						29	1	0.1	12
						36	2	0.1	13
						47	10	0.9	13-18
						48	4	0.3	13-15

## Appendix Table 2.--Continued.

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch		Range (cm)
		No.	Wt. (kg)					Wt. (kg)	No.	
<u><i>Aluterus schoepfii</i>--Cont.</u>										
D-69-23	1	*	*	43		1	0.2	28		
	8	1	*	45		3	3.4	45-50		
	16	1	*	52		1	0.9	52		
	34	2	*	55		5	2.3	28-42		
D-69-25	8	2	*	57		5	4.8	40-46		
	10	1	*	9		2	1.4	39-43		
D-69-29	10	2	*	10		1	0.9	44		
	19	1	*	11		1	0.5	41		
D-71-3	31	1	1.1	14		1	0.8	44		
	34	20	19.5	16		2	1.6	40-42		
D-71-11	8	2	1.9	20		1	1.1	46		
	35	5	2.5	23		1	1.1	47		
	38	5	3.4	24		3	3.2	42-49		
Del-71-2	1	1	0.1	25		18	10.9	33-50		
Del-71-3	12	2	1.8	30		3	2.7	44-46		
	13	28	21.3	32		8	8.6	45-55		
	14	8	6.4	41-43		33	2	2.3	49-50	
	15	1	0.7	41		37	4	3.4	43-46	
	17	1	0.7	41		38	5	5.9	46-50	
	20	2	1.6	39-45		41	6	7.0	43-52	
	24	1	1.2	47		43	9	8.2	39-50	
	25	2	2.0	44-45		44	3	2.7	43-46	
	26	6	4.8	39-46		45	8	9.5	45-50	
	27	5	3.9	37-48		50	1	0.7	42	
	29	5	5.2	44-49		51	1	0.5	39	
	30	1	1.5	50		52	35	30.8	35-51	
	32	3	3.4	44-46		53	7	4.1	29-52	
	33	3	3.5	46-47		56	1	0.6	42	
	38	3	3.4	46-50		59	6	5.0	33-50	
	39	3	3.6	44-51		60	2	1.6	43-46	
	40	10	10.4	40-49		67	3	2.0	39-44	
	41	1	1.2	48						

Appendix Table 2.--Continued.

Cruise	Stn.	No.	Catch Wt. (kg)	Range (cm)	Cruise	Stn.	No.	Catch Wt. (kg)	Range (cm)
<i>Aluterus schoepfii</i> --Cont.									
<i>Aluterus scriptus</i> --Cont.									
Del-72-15	17	10	4.5	26-46			43	0.2	24
	18	3	2.5	41-47			44	0.2	22-25
	19	9	5.9	38-44			50	1	19
	21	1	0.3	38			51	2	19
	25	2	1.8	45-47			55	1	0.1
	26	7	6.8	41-48			57	1	0.2
	27	4	3.2	40-49	Del-72-8		17	1	0.1
	32	9	7.3	41-49			37	2	1.1
	33	5	5.9	45-49			38	1	0.2
	34	3	2.0	42-45			45	2	0.6
	35	4	4.5	42-46			46	2	0.2
	40	7	8.2	40-53	Del-72-15		16	1	0.2
	46	2	2.3	45-46			17	2	0.5
	49	6	8.2	46-54			24	2	0.2
	52	4	5.0	47-50			40	1	0.5
	53	3	3.9	46-50					
	54	2	2.0	46-52					
	60	1	1.1	45					
	61	1	0.9	46	D-69-23		10	1	*
	62	2	1.7	44-46	D-69-29		22	1	*
	63	1	0.8	45	D-71-11		26	1	0.2
	67	3	2.0	42-44	Del-71-3		8	1	0.1
	69	1	0.9	42			10	3	0.2
							26	8	0.6
							28	1	+
							30	7	0.5
							31	1	+
							37	17	1.5
							38	1	+
D-69-23	27	1	*						
D-71-11	36	1	0.1						
Del-71-3	18	3	0.1	19-25					
	28	2	0.1	16-26					
	30	2	0.1	17-20					
	37	2	0.2	26-27					

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Balistes capriscus</i>--Cont.</u>									
45	1	0.1	12	Del-72-8	68	1	3.6	60	
49	6	0.5	12-13	Del-72-15	71	1	3.5	61	
55	3	0.4	14-24						
56	1	+	13	<u><i>Canthidermis sufflamen</i></u> , ocean triggerfish					
57	2	2.0	27-45	D-69-23	8	1	*	*	*
8	*	*		D-69-29	9	1	*	*	*
17	3	0.2	12-14						
26	1	0.1	13						
29	5	1.9	13-45						
43	1	0.1	15	<u><i>Monocanthus ciliatus</i></u> , fringed filefish					
44	3	0.1	16-17	De1-71-3	37	1	+	11	
46	2	0.1	14						
53	1	0.1	18		55	1	+	12	
7	1	0.1	14	De1-72-8	46	5	0.1	11-13	
8	1	0.1	20		47	1	+	12	
9	1	0.1	17	De1-72-15	31	1	0.1	12	
11	1	0.9	40						
15	5	0.3	13-16	<u><i>Monocanthus hispidus</i></u> , planehead filefish					
17	3	0.6	18-22	D-68-13	11	45	11.3		
34	1	0.1	19						
40	2	0.2	15-25		12	*	*		
41	1	0.1	18	D-69-9	24	1	*		
43	1	0.1	20		25	12	*		
46	2	0.2	18-20		32	1	*		
48	1	0.1	18		34	1	*		
55	6	0.5	14-19		36	1	*		
63	1	0.2	23		40	1	*		
70	1	0.1	15	D-69-23	59	1	*		
					1	35	*		
					2	16	*		
					3	21	*		

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Monocanthus hispidus</i>--Cont.</u>									
4	14	*	*	13			8	*	6-24
5	3	*	*	14			2	*	5-23
6	5	*	*	16			21	*	8-23
7	3	*	*	17			3	*	19-24
8	18	*	*	18			86	13.8	15-24
9	3	*	*	19			*	16.3	18-21
10	6	*	*	20			13	*	16-22
11	32	*	*	21			2	*	11-18
12	2	*	*	22			1	*	19
13	15	*	*	23			1	*	17
14	15	*	*	21			5	0.9	21-23
15	7	*	*	22			1	0.2	23
16	1	*	*	21			+		5-11
30	1	*	*	22			1	0.1	11
36	1	*	*	22			1	0.1	23
38	1	*	*	35			1	0.1	18-24
45	1	*	*	38			12	2.0	21-23
45	5	1	*	39			2	0.2	14-25
6	3	*	*	40			8	1.6	11
7	1	*	*	45			1	+	5-14
8	3	*	*	De1-71-3			5	0.2	7-14
10	1	*	*	10-11			9	0.5	11-24
10	11	*	*	11			6		11
12	1	*	*	11			7	2	0.1
13	2	*	*	10			10	1	1.1
1	14	*	*	22-27			13	6	1.1
2	9	*	*	12-19			14	7	18-25
3	1	*	*	7			15	3	10-24
4	5	*	*	21-23			18	20	1.4
6	1	*	*	27			5	0.2	13-23
7	2	*	*	10-12			21	1	1.4
9	5	*	*	21-25			22	2	6-22
10	33	*	*	9-25			26	8	0.1
11	10	*	*	18-24			27	66	9-12
									7-11
									6-25

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		No.	Wt. (kg)	Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)			
<u>Monocanthus hispidus</u> --Cont.											
28	27	2.7	10-25	26		5	0.6	13-15			
29	8	0.5	10-24	30		1	0.2	22			
31	3	0.1	8-9	43		4	0.8	20-23			
37	8	0.2	5-11	44		1	0.1	12			
38	5	0.1	7-11	45		4	1.4	12-29			
39	1	+	4	46		181	8.6	10-26			
43	2	0.1	9-12	47		14	1.4	12-23			
44	12	0.8	6-21	52		2	0.5	24-26			
45	2	0.1	10-11	54		4	0.2	10-15			
48	2	0.1	11	59		2	0.2	23-24			
49	13	0.7	7-16	60		14	3.2	22-25			
50	10	0.5	9-24	67		9	1.8	21-25			
51	10	0.7	11-22	68		24	4.5	19-26			
52	1	+	12	70		21	3.2	19-24			
55	124	9.5	10-24	70		1	0.1	23			
56	32	5.0	9-29	8		2	0.5	22-25			
57	246	31.3	9-25	9		1	0.2	23			
58	4	0.6	2-24	12		2	0.2	16-19			
59	13	2.0	16-24	15		25	3.4	12-25			
61	1	+	12	16		11	2.3	21-27			
63	3	0.1	9-12	17		77	13.2	12-24			
64	4	0.2	12-16	18		7	1.7	20-25			
8	*	*	*	19		5	1.1	20-25			
9	4	0.7	19-24	20		1	0.1	21			
10	13	2.5	18-25	24		2	0.5	23-26			
11	4	1.0	22-26	25		2	0.2	20-23			
12	1	+	16	26		4	0.8	21-24			
16	2	0.4	23-25	31		48	3.2	13-22			
17	20	2.9	11-24	32		6	0.5	13-16			
18	4	0.5	12-22	40		2	0.1	12-14			
24	2	0.6	23-24	47		1	0.1	17			
25	1	0.2	25	49		1	0.1	13			

## Appendix Table 2.--Continued.

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Sphoeroides maculatus</i>, northern puffer</u>									
D-68-7	10	3	*	21		51	*	*	*
	14	1	*	21		54	*	*	*
D-68-13	1	3	0.5	14-18	D-69-9	4	3	*	*
	2	4	*	16-22		6	1	*	*
	4	*	*	*		7	*	*	*
	5	*	*	*		8	*	*	*
	10	8	*	*		9	*	*	11-27
	11	11	1.4	*		10	800	362.9	13-22
	12	5	*	*		11	*	45.4	13-22
	15	1	*	*		12	25	249.5	14-25
	21	3	*	*		13	50	*	*
	22	*	*	*		14	*	*	*
	23	*	*	*		15	200	*	*
	24	*	*	*		16	100	*	*
	25	*	*	*		17	30	*	*
	26	5	*	*		19	30	*	*
	27	*	1.4	*		20	30	*	*
	29	*	*	*		21	50	*	*
	30	*	*	*		22	15	*	*
	31	*	*	*		23	*	3.6	*
	32	7	*	*		24	200	*	*
	38	*	*	*		25	2	*	*
	39	*	*	*		26	14	*	*
	40	6	*	*		27	30	*	*
	41	3	*	*		29	25	*	*
	42	*	*	*		30	30	*	*
	43	6	*	*		31	45	*	*
	44	20	3.2	*		32	16	*	*
	45	15	2.3	16-22		33	20	*	*
	46	1	*	*		34	25	*	*
	49	*	*	*		35	40	*	*
	50	45				36	6		

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	cruise	Stn.	Catch		Range (kg)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Sphoeroides maculatus</i>--Cont.</u>									
	39	30	*	*			16	5	*
	40	70	*	*			17	1	*
	41	50	*	*			21	2	*
	42	20	*	*			22	17	*
	46	55	*	*			23	2	*
	47	30	*	*			25	*	*
	48	75	*	*			27	11	*
	50	200	*	*			29	3	*
	51	50	*	*			31	10	*
	52	50	*	*			32	114	*
	53	55	*	*			33	8	*
	54	80	*	*			34	2	*
	55	25	*	*			35	4	*
	56	40	*	*			44	3	*
	57	50	*	*			45	5	*
	60	1	*	*	D-69-25	1	50	*	*
D-69-15	12	8	*	*		2	2	*	*
	13	23	*	*		3	1	*	*
	14	5	*	*		7	7	*	*
	26	25	*	*		8	5	*	*
	27	2	*	*		9	*	*	*
	36	1	*	*		10	6	*	*
	68	56	*	*		12	26	*	*
	69	37	*	*		13	35	*	*
D-69-21	1	1	*	*	D-69-29	1	1	*	*
	3	3	*	*		2	1	10	
D-69-23	4	2	*	*		9	3	6-23	
	4	4	*	*		12	1	20	
	7	1	*	*		13	1	20	
	13	1	*	*		16	5	18-27	
	14	1	*	*		18	1	20	
	15	2	*	*		9	19	14	

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch		Range (cm)
		No.	Wt. (kg)					wt. (kg)	No.	
<u><i>Sphoeroides maculatus</i>--Cont.</u>										
20	10	*	11.3	19-28	D-71-14		1	0.1	6-8	
21	*			*			6	2	0.7	21-23
22	5	*		16-26			18	2	0.3	7-25
23	21	*	*				19	6	1.4	8-23
24	9	*		9-22			26	7	0.1	6-8
25	6	*		14-19	De1-71-3		7	11	2.3	11-25
26	1	*		14			13	2	0.3	20
27	5	*		15-18			21	1	0.1	13
6	1	0.1		18			24	1	0.1	12
9	12	2.9		17-22			28	1	0.1	13
9	39	14.7		13-21			43	1	0.1	15
10	3	0.7		16-23			46	2	0.1	18-19
16	1	0.2		22			51	1	0.1	15
39	14	3.6		6-25			57	3	0.3	12-19
40	27	9.1		5-27			59	24	5.0	18-25
6	1	0.1		23			60	1	+	13
7	6	1.4		20-22			61	2	0.1	9-12
8	1	0.1		22			62	6	0.1	8-10
14	2	0.2		20-21			64	1	0.1	14
17	1	0.1		19			65	2	+	7-10
18	1	0.2		22			66	2	+	6
25	2	0.2		10-18			67	2	0.6	21-23
26	1	0.1		19	De1-72-8		9	1	0.1	12
35	1	0.2		24			16	2	0.1	13-20
36	2	0.3		18-20			17	1	0.1	17
37	6	1.4		11-24			24	1	0.1	20
4	1	0.2		23			25	1	0.1	15
8	4	1.1		20-28			44	1	0.1	20
18	3	0.2		10-13			64	9	2.7	20-28
42	1	0.1		22			65	6	1.4	10-23
46	2	0.3		11-22			71	2	0.2	15-21
47	24	4.8		14-24			72	2	0.1	9-10

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	Catch		Range (cm)
		No.	Wt. (kg)				No.	Wt. (kg)	
<u><i>Sphoeroides maculatus</i>--Cont.</u>									
Del-72-15	1	1	0.2	21			32	*	*
7	1	+	10	42			46	1	*
8	3	0.1	9-16	46			47	*	*
21	2	0.1	12	47			1	*	*
62	1	0.2	20	D-69-9			16	*	*
66	1	0.1	12		27		1	*	*
67	1	+	10	D-69-23			1	*	*
68	2	0.1	12-13		16		1	*	*
76	3	0.1	9-10	D-69-29			10	*	20
					18		2	*	17-28
					20		1	*	10
					23		2	*	12-16
<u><i>Sphoeroides nephelus</i>, southern puffer</u>									
Del-72-8	25	1	0.1	16			27	1	*
Del-71-3	27	2	0.1	10-14	D-71-3		19	2	0.2
28	1	+	13		25		1	+	9
29	1	0.1	18	D-71-11			9	1	0.2
30	1	0.1	17		21		1	0.1	18
36	2	0.1	13-15		26		1	0.3	22
37	1	0.1	15		32		1	0.3	20
43	2	0.1	13-19		38		3	0.7	19-23
56	1	+	10	D-71-14			18	1	0.2
	7	1	+		19		4	2.2	18-20
45	1	0.1	14	Del-71-3			24	1	0.1
Del-72-15	40	4	0.2	16-19			27	1	0.2
	64	3	0.2	14-16			29	2	0.1
					30		1	+	7
DIODONTIDAE									
<u><i>Chilomycterus schoepfi</i>, striped burrfish</u>									
D-68-13	3	1	*		37		1	0.1	9
	11	1	*		51		1	0.1	19
					55		3	0.2	9
					56		1	0.1	19
					57		3	1.1	20-23

Appendix Table 2.--Continued.

Cruise	Stn.	Catch		Range (cm)	Cruise	Stn.	No.	Catch	Wt. (kg)	Range (cm)
		No.	Wt. (kg)							
<u><i>Chilomycterus schoepfii</i>--Cont.</u>										
Del-72-8	16	1	0.1	18						
	17	1	0.1	19						
	21	3	0.6	17						
	59	1	0.1	21						
	67	2	0.5	17-18						
	17	1	0.2	20						
	31	1	0.1	15						
	36	1	0.2	19						
	54	1	0.2	15						
	55	1	0.2	19						
	64	1	0.5	23						
	70	4	1.8	17-27						
<u><i>Diodon hystrix</i>, porcupinefish</u>										
Del-72-15	64	1	0.9	34						



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